Docket NCR-8778

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

M. R. Bauer

Application No.: 09/556,

Confirmation No:

7493 TADEMAS

Filed: 04/24/2000

Title: Material Browser

Art Unit: 3627

Examiner: Fischer, A.

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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES GROUP 3600

MS AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR 1.192, Applicant hereby submits this Appeal Brief in triplicate and requests that the decision of the examiner dated 10/22/03 finally rejecting claims 15-18, 21, 22, and 31-39 be reversed and that these claims be allowed.

#### REAL PARTY IN INTEREST

The real party in interest is the assignee of record.

## RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

# CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

FRANCIS L. CONTE

(Name of person mailing paper) (Signature of person mailing paper)

19 Dec 2003

(Date)

#### STATUS OF CLAIMS

Claims 1, 2 and 31-39 stand pending in the application.

Claims 23-30 stand canceled, without prejudice.

Claims 1-14 stand withdrawn due to restriction.

Claims 19 and 20 stand objected to.

Claims 15-18, 21, 22, and 31-39 stand finally rejected and are the subject of this Appeal Brief.

## STATUS OF AMENDMENTS

There is no amendment filed subsequent to the final rejection.

#### PROSECUTION HISTORY

The prosecution of the subject application is quite protracted.

The first office action dated 08/02/2002 contains nine (9) pages of numerous adverse findings by the examiner, including action on the merits of original claims 1-14.

A supplemental office action dated 09/24/2003 resolved the examiner's failure to consider the IDS.

An amendment was filed on 10/21/2002 amending certain claims, and adding claims 15-30.

A second office action restriction requirement was mailed on 12/17/2002 presenting four groups of method and apparatus claims.

A second amendment was filed on 01/09/2003 traversing the restriction requirement; amending claims 15 and 22 (first occurrence); and re-introducing new claims 31-39 to replace the incorrectly numbered claims 22 (second occurrence)-30.

A third and final office action was mailed on 03/27/2003 making final the restriction requirement, and rejecting the remaining claims 22 and 31-39 using eleven (11) additional pages of adverse findings.

Because that final office action contained clear examples of incomplete review and failure to afford due weight to express claim language, this attorney made several phone calls to the

USPTO leading to acting supervisor M. Cuff. In a phone interview conducted with supervisor Cuff on 04/29/03, various options were discussed in promoting the expeditious prosecution of the application.

For example, the examiner's failure to afford due weight to the statutorily permitted "means for" language addressed in paras. 8-11 of the office action was discussed along with the corresponding requirements of MPEP 2181.

In para. 11 of the office action the examiner requested the Applicant to "expressly state" the desire to invoke Section 112, 6th para; yet at page 26, 4th para., of the first amendment the following statement was expressly made:

Claims 22-26 & 30 are apparatus claims corresponding with method claims 15-21, reciting features in the means-for terms of Section 112, 6th para. [Note that all bold emphasis in this Brief is provided for this appeal]

And, page 10 of the second amendment additionally stated that: "... it is noted that apparatus claim 22 is the means-for equivalent of method claim 15 under MPEP 809.03...."

Discussed further were the special requirements for examining computer-related inventions under MPEP 2106 found wanting in the final office action.

And, discussed yet further was the modicum of references of record relating to computer inventions, for which a supplemental search might be warranted.

The phone interview was ended with the scheduling of a phone interview with supervisor Cuff for May 8th to discuss the various issues to promote the prosecution.

However, supervisor Cuff called this attorney on April 30th to indicate that examiner Fischer was agreeable to review the matter, withdraw the final office action, and present yet another office action, with the possibility of a phone interview prior thereto. The May 8th interview was therefore canceled.

The fourth office action, and second final, was mailed on 06/06/2002 copying substantially verbatim the first final office action; yet adding the objection to the specification in para. 5;

adding the rejection under Section 112 in paras. 6 & 7; and adding remarks in paras. 14 and 18-26, for example.

It is also noted that the examiner used the same art of record without additional search results; and failed to address the special computer-related provisions of MPEP 2106.

A petition traversing the restriction requirement was filed by fax on 07/23/03.

The decision on petition was granted-in-part on 10/03/03.

And, now the present fifth office action, and third final rejection, duplicates in large part the previous final office action, and additionally rejects apparatus claims 15-18 and 21 now re-introduced following the decision on petition.

Not only has the prosecution of this application been quite protracted due to error after error made by the examiner, as clearly evidenced from the file history, but the claims have undergone substantial scrutiny by the examiner, supervisors, and even the group director himself; and now, the three-member Board of Appeal adds to that scrutiny.

The patent rules are quite clear: the examiner has the burden to support rejections based on evidence and logic; and the Applicant is charged with the task of pointing out the errors (See Rules 111 & 192) in such rejections in supporting the patentability of the claims.

The evidence of record will clearly show that the examiner has failed to meet his burden; has failed to establish even prima facie showings; has failed to consider the evidence of record in the whole; has failed to afford due weight to express claim language; and has attempted to distort the remarks of record made on Applicant's behalf.

For the record, Applicant continues to traverse all of the examiner's rejections, contentions, and distortions of the remarks as specifically pointed out in the previous responses; and now as additionally addressed herein.

#### **BACKGROUND**

Pressure sensitive labels are quite ubiquitous and available in various configurations, sizes, and material compositions for a

myriad of different applications.

To the casual user of such labels, they would appear quite simple in design; yet to those skilled in the art of their manufacture and specialty use, pressure sensitive labels can be esoteric, and sophisticated complex, in both their manufacture and construction.

The Background section beginning at page 1 recognizes that different raw materials are used in the manufacturing plants to producing documents in accordance with the intended application of This requires the cooperation of the particular the customer. customer and an experienced sales person in developing the desired document.

Pressure sensitive raw materials are fundamental to document being developed as presented at page 1, 11. 22+, of the specification, and are offered in various facestock, adhesive, and liner combinations.

The desired raw material can also vary based on print method, adhesive type selected, minimum application temperature for the adhesive selected, service range of the adhesive selected, facestock type selected as presented at page 2, 11. 8+.

Print methods include cut sheet lap joined, cut sheet laser, direct thermal, thermal transfer and impact as listed at page 2, 11. 13+. Adhesive types include permanent, cold temp and removable; and facestock types include paper, kimdura, 100# tag, 7 pt tag, 8 pt tag, matte litho, latex impregnated, gloss, matte chrome polyester, bright chrome polyester, clear polyester, white polyester, polyolefin and vinyl as listed at 11. 14+.

These various elements must be analyzed and combined to fabricate a particular document, and the number of possible And, those combinations are commonly combinations is myriad. developed manually between the technical sales person and the customer.

# SUMMARY OF INVENTION

Independent claim 15 recites a method of selecting a raw material 306 for manufacturing a product therefrom, independent claim 22 recites the apparatus, with corresponding

means-for elements.

The apparatus is the computer system 100 illustrated in Figure 1, and introduced at page 5, 11. 29+. The system 100 includes a corresponding **hardware** such as the processor 104, main memory 106, storage device 110, and display 112 operatively joined together to form a material browser 300 illustrated in one form on the display in figure 3.

The computer-implemented material browser 100/300 is additionally shown in Figure 3 and uses **software** represented by the high level flow chart shown in Figure 2 to interact with the user as disclosed at page 3, 11. 16+; and implement the functional **instructions** executed by the processor 104 as disclosed at page 6, 11. 3+.

Means 104,106,112 are provided for storing a list of different raw materials 306, with each of the raw materials having various customer application criteria 304 stored therewith, and the criteria being indicative of intended application of the raw material in a product.

Means 104 are also provided for populating a plurality of filter lists 318 corresponding with the stored customer application criteria for the different raw materials.

Means 104/112 are provided for displaying the material browser 300 including a plurality of filters 322-330 corresponding with the filter lists.

Means 104 are provided for selecting one of the filter lists and specifying a filter criterion therein.

Means 104 are provided for filtering the list of raw materials to obtain a filtered list thereof matching the filter criterion.

And, means 104/112/302 are provided for displaying in the browser 300 the filtered list of raw materials matching the filter criterion.

These features are disclosed at various locations in the specification including page 1, lines 9+; page 2, lines 2+; page 3, lines 16+; page 5, lines 2+; page 6, lines 8+; page 8, lines 18+; page 9, lines 15+; page 10, lines 4+; and page 11, lines 17+.

As expressly stated at page 3, 11. 16+, "The material browser uses software interacting with the user to determine the most

appropriate raw material required for an application."

In this way, the document development process is automated in a specific manner for a specific purpose, and operates with the specific functions recited in the independent claims, and with those additional functions additionally recited in the dependent claims as further addressed hereinbelow.

Page 5, 11. 26+, expressly states that the material browser computer system may be implemented "with currently available personal computers, laptop and notebook computers, mini-mainframes and the like," which are expressly programmed for the new functions and use recited in the various claims, and described in the specification.

#### **ISSUES**

Issue (1) - whether claims [16, 18 and] 22 and 31-39 are unpatentable under 35 USC 112, second paragraph.

Issue (2) - whether claims 22, 31-33, and 39 are unpatentable under 35 USC 102(e) over Salvo et al.

Issue (3) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 102(e) over Purcell.

Issue (4) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 103(a) over Salvo et al.

Issue (5) - whether claims 15-18 and 21 are unpatentable under 35 USC 103(a) over Salvo et al "and Applicant's admissions regarding the 'substantially verbatim' standard".

Issue (6) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 103(a) over Purcell and Peterson et al.

# GROUPING OF CLAIMS

The rejected claims do not stand or fall together in each of the separate issues and groups listed above, and are separately argued hereinbelow.

#### REFERENCES APPLIED

U.S. Patent 6,341,271 - Salvo et al.

U.S. Patent 5,940,807 - Purcell.

U.S. Patent 6,324,522 - Peterson et al.

Petition Under Rule 144 - filed 07/23/2003

## **ARGUMENT**

The thirty-three page, fifth, and now final office action is indicative of not only the examiner's considerable review of the application, but is indicative of the apparent acrimony unfortunately clouding the objective evaluation of Applicant's claims.

Applicant's specification is quite straight forward in describing the new features of the material browser being claimed, in common terms well known to those skilled in the art.

Indeed, in para. 45 of the office action the examiner identifies three basic references, which collectively contain about 1000 pages, on fundamentals of computers, networks, and the internet as "primarily directed towards those of low skill in the art," and further contends that "one of ordinary skill in this art must -- at the very least -- be aware of the knowledge and information contained in these three references."

To be sure, computers, networks, and the internet are well known; yet the examiner strongly contends that the corresponding features disclosed in Applicant's specification and recited in the claims would not be sufficiently understood by the same person of ordinary skill in the art in meeting the statutory requirements of Section 112, and in distinguishing over the applied art under Section 102 and 103. This is quite illogical.

The examiner requires the Applicant to meet insurmountable standards, yet the examiner himself fails to comply over and over with the various patent statutes, rules, and MPEP provisions, as clearly evidenced by the multiple errors reflected in the now five office actions of record.

In para. 21 of the office action, the examiner presents his "broadest reasonable interpretation standard ... unless modified in this Office Action," yet the examiner has failed to show how all of the listed terms are relevant to or found in Applicant's specification or claims.

The examiner uses a plethora of footnotes, including footnote 14 on page 13 for the specific position that "the Board is required to set forth ... conclusions of law...;" yet the examiner himself in para. 3 at page 2 indicates the he "incorporates by reference all other findings and conclusion of law." The examiner's "conclusion of law" are indicative of more failures in complying with the objective requirements of the patent rules and MPEP based on fact finding to support rejections: not conclusions of law.

A fair and objective evaluation of Applicant's specification and claims when read in light of that specification, and when interpreted by one of ordinary skill in the art of computer programming should clearly result in the reversal of all rejections of record, as well as reversal of the objection to the specification in a separately filed Petition specific thereto.

#### ISSUE 1

Issue (1) - whether claims [16, 18 and] 22 and 31-39 are unpatentable under 35 USC 112, second paragraph.

The examiner's contention regarding "subcombination" v. "apparatus" is one of form over substance, and overlooks the means-for elements and their interpretation under Section 112, 6th para.

A test for complying with the requirement of 35 U.S.C. §112, second paragraph, is presented in Orthokinetics Inc. v. Safety Travel Chairs Inc., 1 USPQ2d 1081, 1088, (Fed. Cir., 1986) as follows:

A decision on whether a claim is invalid under §112, [second paragraph] requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. [Citations omitted]...

The Federal Circuit in In re Donaldson, Inc., 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) has expressly reigned in the old USPTO practice of overly broad interpretation of "means for" claim language under the express language of the statutory provision of



Section 112, para. 6. The Federal Circuit states:

The plain and unambiguous meaning of paragraph six is that one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure. Paragraph six does not state or even suggest that the PTO is exempt from this mandate....

... the 'broadest reasonable interpretation' that an examiner may give means-plus-function is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination.

The preamble of claim 22 expressly recites an apparatus, and the body of that claim then lists the elements thereof in the means-for manner authorized by Section 112, 6th para. As such, the apparatus recited in claim 22 is clearly a combination claim of the elements so listed.

The examiner has repeatedly failed to afford any weight to means-for elements and without regard to MPEP 2181, as clearly supported in the record.

Yet again, the examiner fails to afford proper weight to the elements recited in claim 22, which include the "means for storing in a computer system." The computer system was introduced into claim 22 in accordance with the "safe harbor" provisions found in MPEP 2106, at page 2100-15, to specifically overcome the examiner's mere contention in the restriction requirement of processing "by hand using index cards and a pencil."

This MPEP safe harbor provision, alone, should be sufficient to overcome the examiner's rejection of this claim.

Nevertheless, the various means recited in claim 22 are supported in the specification, and Section 112, 6th para., requires that the claim be read in light thereof.

The examiner's attempt (para. 6a) to interpret "the claim as a combination claim including all physical structures shown in Figure 1" is clearly erroneous, and not supported by the specification, the MPEP, or case law, nor has the examiner provided any footnote in support thereof.

In para. 6(b), the examiner then opines that "the specification does not clearly link the corresponding structure" to the several means elements expressly recited in claim 22. This is clear error.

MPEP 2181 at page 2100-219 addresses the requirements under Section 112, first paragraph, and the corresponding standard under Section 112, sixth paragraph, for linking the claim elements to the specification. Citing Wolfensperger, this MPEP provision merely states that: "This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing 112, paragraph 6.

As presented in substantial detail hereinbelow, the specification clearly introduces and describes, and illustrates in the figures various structures associated with the express functions found in all the claims, including specifically claim 22 being rejected by the examiner; and thusly amply meets the "linking" standard of Section 112, paragraphs 1 and 6, as well as paragraph 2 thereof.

A test for complying with the written description requirement of 35 U.S.C. Section 112, first paragraph, is presented in Exparte Sorenson, 3 USPQ2d 1462, 1463 (Board of Patent Appeals and Interferences, 1987) as follows:

By the same token, we are mindful that appellant's specification need not describe the invention in ipsis verbis to comply with the written description requirement. In re Edwards, 568 F.2d 1349, 196 USPQ 465 (CCPA 1978). The test is whether the originally filed specification disclosure reasonably conveys to a person having ordinary skill that Applicant had possession of the subject matter later claimed. In re Kaslow, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983)... Moreover, the Examiner has the initial burden of presenting evidence or reasons why a person skilled in the art would not recognize in appellant's specification disclosure a description of the invention defined by the claims.

And, in Ex parte Hradcovsky, 214 USPQ 555 (P.O. Bd. App. 1982) it was held that:

Appellant's specification as originally filed describes the invention in substantially the same terms as those

employed in the claims and, thus, the description requirement of the statute has been complied with.

Claim 22 recites several means-for elements in combination; and the examiner addresses these means elements under MPEP 2181 as found in multiple paras. 22-30 presented on multiple pages 16-24. The extraordinary presentation by the examiner of such means-for analysis is noted, yet nevertheless results in the obvious, i.e. the claims expressly use the "means-for" elements permitted under Section 112, 6th para., on their face, as well as being so-indicated by Applicant in previous responses.

Why does the examiner belabor this point? Why does the examiner repeatedly attempt to speak for the Applicant and make "presumptions" (page 17 for example) on behalf of the Applicant, with the warning ("Failure by Applicant," page 17 for example) of adverse consequences ("non-responsive," page 17 for example)?

This is not appropriate prosecution, nor fair prosecution, and amounts to a double standard. The examiner is duty bound to examine patent applications in accordance with the applicable patent provisions in behalf of the United States Patent and Trademark Office.

The Applicant is duty bound to respond to the examiner's contentions under patent Rule 111 and: "specifically [point] out the supposed errors in the examiner's action and must reply to every ground of objection and rejection in the prior Office action."

Accordingly, Applicant hereby traverses each and every contention, presumption, and other attempt by the examiner to speak on behalf of Applicant, which is in any way inconsistent with Applicant's express remarks in responding to the various objections and rejections.

Furthermore, Applicant hereby traverses each and every use by the examiner in citing case law as failing to provide any factual or logical nexus with specific elements of specific claims in applying such cases. The examiner's use of such cases, either directly or in the various footnotes, is merely conclusory, and lacks a presentation of analysis in the record. The use of such cases, along with other conclusions, appear to be the

"conclusion[s] of law," which the examiner expressly states at page 2, para. 3.

Regarding para. 22 at pages 16 & 17, claim 22 is a combination claim, and therefore it is quite fundamental that the "point of novelty" is reflected not in the individual elements, but in their combination.

In para. 23 at pages 17-19, the examiner apparently concludes that the firstly recited means element [Means Phrase #1 of claim 22, not "claim 6" listed by the examiner] invokes Section 112, 6th para., as is well apparent, and previously stated by Applicant.

In para. 24 at page 20 the examiner simply concludes as a matter of "the Examiner's factual determination" that this element is ambiguous and could not be interpreted by a person of ordinary skill in the art, without the examiner even addressing the particulars of the disclosure.

In para. 26 at page 21 the examiner merely contends that all the means elements "have [been] considered including the entire specification, including claims and drawings," yet the examiner has not even recognized the express support for these elements presented in the first amendment response dated 10/21/02 commencing at page 23.

"Ambigu[uos]" the examiner opines in para. 24a? Yet, in para. 45 at page 30 the examiner cites <u>How Computers Work</u> for the proposition that even those of **low** skilled in the art understand the basic construction and operation of computers. Would not those of **ordinary** skill know considerably more?

Beginning at page 76 of that reference, Chapter 8 describes "How Software Applications Work." At page 78, Database Managers are discussed as being implemented by software. At page 79, that reference states that "The range of tasks a database manager can perform varies with the complexity of the program." And then several jobs are listed.

This very reference provided by the examiner is clear evidence that the various means elements recited in the claims would not in any way be "ambigu[ous]" to those of ordinary skill in the art.

Even the examiner, who is not one skilled in the art, lists examples in para. 24a at page 20 as "the corresponding structure

could be a CPU, hard drive, computer memory, the BIOS, other software, all of the above, or some other structure." There is clearly no ambiguity here.

The examiner confuses claim breadth (para. 21) with definiteness. Typical practice before the USPTO includes the remarkably broad interpretation of claims and their elements, and especially means-for elements, narrowed only in scope after the In re Donaldson case cited above in which the examiner must look to Applicant's specification for the corresponding elements, and to the equivalents thereof.

The examiner's express list of common computer elements is merely representative of suitable elements for the means-for components recited in the claims. Even if any one or more of those elements could be used, is this not definite? Why would this be ambiguous? Could not one skilled in the art select which element would be most appropriate for the specific system built in conformance with the claims?

Most importantly, and notwithstanding the examiner's mere contention in para. 26, the examiner has in fact failed to afford any weight to Applicant's disclosure in evaluating the means-plusfunction elements recited in the claims, and has expressly failed to consider all limitations in the claims, as evidenced by his partial quotations of the various means elements in para. 6b, for example.

Claim 22 specifically recites means 104,106,112 for storing a list of different raw materials 306, with each of the raw materials having various customer application criteria 304 stored therewith, and the criteria being indicative of intended application of the raw material in a product.

MPEP 2106 at page 2100-8 cites In re Morris for "broadest reasonable interpretation in light of the supporting disclosure;" compare para. 21 of the office action, and para. 20 in which the examiner omits the latter part of that quote.

MPEP 2106 at page 2100-9 cites In re Donaldson and In re Alappat for interpreting means-plus-function elements.

MPEP 2106 at page 2100-9 also mandates that: "when evaluating the scope a claim. <u>every</u> limitation in the claim must be considered."

MPEP 2106 at page 2100-20 states that:

The claimed invention subject matter need not be described literally, i.e., using the same terms, in order for the disclosure to satisfy the description requirement. **Software** aspects of inventions may be described functionally" in determining an adequate written description.

And, also at page 2100-20, MPEP 2106 provides that:

For a computer-related invention, the disclosure must enable a skilled artisan to configure the computer to possess the requisite functionality....

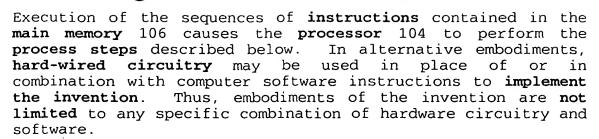
As indicated above, Figure 1 illustrates the computer system 100 including the processor 104, memory 106, and storage device 110, for effecting the material browser 300 shown in Figure 3. The specification is replete with detailed description of these and other features of the browser as specifically related to the claims. Following are merely examples of such description, with it being quite appropriate for the Board to read the entire specification for an objective evaluation thereof, as well as the claims.

Page 3, 11. 16+, states that: "The material browser uses software interacting with the user to determine the most appropriate raw material required for an application."

Page 6, 11. 1+ states that:

Computer system 100 also includes a main memory 106, such as a random access memory (RAM) or other dynamic storage device, coupled to the bus 102 for storing instructions to be executed by processor 104. Main memory 106 also may be used for storing temporary variables, raw material types, customer application criteria, and raw material information or other intermediate information during execution of instructions to be executed by processor 104. Computer system 100 further includes a read only memory (ROM) 108 or other static storage device coupled to the bus 102 for storing static information and instructions for the processor 104. A storage device 110, such as a magnetic disk or optical disk, is provided and coupled to the bus 102 for storing instructions, raw material types, customer application criteria, and raw material information.

Page 7, 11. 7+, states that:



And, page 9, 11. 18+, states that:

The material browser window 300 provides decision support for selecting the most appropriate raw material for the customer's application.

What structure then in the specification corresponds with the first storing means element of claim 22? The specification is quite clear, quite specific, quite definite, and clearly without "ambiguity."

The invention recited in various embodiments in the claims is a computer-implemented invention, see MPEP 2106 supra nowhere addressed by the examiner in the manner of MPEP 2181, not a "by hand" invention as previously proffered by the examiner in the restriction requirement.

The claimed invention is embodied in a computer system, having various operative components, well recognized by the examiner, and in his own citation of <u>How Computers Work</u>, para. 45.

The computer system includes the processor 104, memory 106, and storage device 110, and is specifically configured in accordance with the claims to effect the specifically recited functions in both the method and apparatus claims.

And, how must that storing means be configured? By using suitable **software** to implement the instructions for manipulating the specified **data** for the specified purpose in interaction with the user in developing the corresponding product. Alternatively, the process steps could be implemented by hard-wiring.

Clearly then, the specification describes structure directly corresponding to the storing means, and even equivalents thereof; overlooked yet the examiner has the specification, and merely stated, at para. 26, that the specification has been considered.

In para. 6b at page 5, the examiner cites two cases, like

many, many other cases cited, without showing how the facts of those cases, or the other cases, are in any way related to the present claims. The examiner uses the case citations, apparently for (his?) conclusions of law (page 2, para. 3) without any showing of applicability.

However, these two cases do not support the examiner's rejections, but, to the contrary, support the propriety of Applicant's claims.

In the Amtel case, a high-voltage generator circuit was recited in claim 1 using means-plus-function, and depicted in the figures as a "black box," without electrical details thereof. The Dickson article was incorporated by reference for known circuits therefor, but not considered by the court in upholding the indefiniteness rejection.

The Federal Circuit citing In re Donaldson and In re Dossel reversed.

The Federal Circuit then stated at 53 USPQ2d 1230 that "the inquiry asks first whether structure *is* described in specification, and, if so, whether one skilled in the art would identify structure from that description."

The Federal Circuit then found at page 1231 that: "the specification plainly states that '[k]nown Circuit techniques are used to implement high-voltage circuit 34... [and] Amtel's expert, Callahan testified that this title alone was sufficient to indicate to one skilled in the art the precise structure of the means recited in the specification."

The Federal Circuit then concluded at page 1231 that: "the specification disclosed sufficient structure corresponding to the high-voltage means limitation."

How then do the facts of this case support the examiner's position in rejecting the claims as indefinite?

The examiner simply presents in quotes at page 5 that "Failure to describe adequately ..." is a failure to comply with Section 112, para. 2.

Yet as indicated above, the specification is **replete** with description of the computer system, its components, and the process steps which incorporate the specified instructions in software, or hard-wired in the alternative.

Applicant's specification contains much, much more than the black box of Amtel, and much more than the mere statement of known circuit techniques, and the latter was quite sufficient in Amtel, and the former should be more than sufficient in the present application.

In the Dossel case, the Board of Appeals entered a new ground of rejection of claims 8 and 9 under Section 112, para. 2, as lacking in the specification a disclosure to support the meansplus-function elements in the device for reconstructing the spatial current distributions in a biological object.

The Federal Circuit addressed the requirements of Section 112, para. 6, and the requirement therefor for adequate disclosure in the specification. The Federal Circuit then recognized that:

Neither the written description nor the claims uses the magic word "computer," nor do they quote computer code that may be used in the invention. Nevertheless, when the written description is combined with claims 8 and 9, the disclosure satisfies the requirements of §112 ¶2. As the written description discloses, the clauses in question claim a device that receives digital data words from a memory and data input from a user. The device then computes, from the received data, the current distributions by mathematical operations including matrix inversion or pseudo inversion, and then outputs the result to a display....

Clearly, a unit which receives digital data, performs complex mathematical computations and outputs the results to a display must be implemented by or on a general or special purpose computer (although it is not clear why the written description does not **simply state "computer"** or some equivalent phrase). To bolster this result we note that, in the medical imaging field, it is well within the realm of common experience that computers are used to generate images for display by mathematically processing digital input. Therefore, ...[the Federal Circuit held] that the requirements of § 112 ¶ 2, that the invention be particularly pointed out and distinctly claimed, are satisfied.

Note, of particular interest in this case that the Federal Circuit reversed the Section 112, para. 2, rejection without the description or claims even using the "magic word computer." In stark contrast, Applicant' specification and claims in fact recite the computer system in which the various means are embodied.

Claim 8 in Dossel recites means for specifying; means for measuring; and means for reconstructing.



Claim 9 in Dossel recites measuring means for determining; memory means for storing; means for determining; and reconstruction means for determining.

These plain mean-plus-function elements were sufficiently supported by the specification, notwithstanding the **lack** of a disclosed computer, which computer was inherent or implied.

Yet again, Applicant's disclosure includes much, much more than the minimal disclosure in Dossel. Applicant's disclosure expressly discloses and illustrates the computer system 100 and its hardware components, and describes the functions to be performed to effect the process instructions recited in the means for elements of the claims, including in particular claim 22 to which the examiner has taken exception.

Clearly, the examiner has overlooked the facts found in these two cases, and the analysis presented therein. Instead, the examiner has cited these two cases, as well as many more cases, for rote conclusions in an unsubstantiated attempt to support his "conclusion[s] of law," page 2, para. 3, in rejecting the claims.

Further relevant in evaluating Applicant's computer-implemented claims are the Federal Circuit's findings in Fonar Corp. v. General Electric Co., 41 USPQ2d 1801 (1997).

Fonar's '966 patent recited in claim 1 a method for a single scan nuclear magnetic resonance (NMR) including functional steps. Figure 7 of that patent illustrated labeled boxes for the computer and related components in which the recited functions were implemented.

The Federal Circuit stated that:

As a general rule, where **software** constitutes part of a best mode of carrying out an invention, description of such a best mode is **satisfied** by a disclosure of the **functions** of the software. This is because, normally, writing code for such software is within the skill of the art, not requiring undue experimentation, once its functions have been disclosed. It is well established that what is within the skill of the art need not be disclosed to satisfy the best mode requirement as long as that mode is described. **Stating the functions of the best mode software satisfies that description test**. We have so held previously and we so hold today.

There can be no doubt that Applicant's specification describes the computer system and its hardware components; and describes the **functional instructions** recited in the means-for elements of the claims, and therefore not only satisfies the best mode description requirement but also provides ample support to "clearly link the corresponding structure" in the specification to the claims, notwithstanding the examiner's mere contention to the contrary.

The examiner has clearly afforded no weight, let alone due weight, to Applicant's specification, in spite of his contentions to the contrary in para. 26. The examiner has clearly failed to establish even a prima facie case, and the two cases expressly cited by the examiner support the adequacy of Applicant's written description, and do not support the examiner's mere contention of no "link" (para. 6b) between the description and claim elements.

Claim 22 additionally recites means 104 for populating a plurality of filter lists 318 corresponding with the stored customer application criteria for the different raw materials.

In para. 27, the examiner simply contends that this element is not sufficiently linked to the specification, yet overlooks the specification itself in simply specifying the "CPU, software, and memory."

But, if the examiner himself can link the "CPU, software, and memory" to this claim element, why then is the specification inadequate? What more does the examiner require for meeting Section 112?

Applicant's specification is replete with description of the material browser and its elements and its functions. In fact, figure 3 is expressly described at page 4 as "an illustration depicting an embodiment of a material browser."

At page 9, 11. 15+, the specification describes the browser window 300 illustrated in figure 3 as displayed on the display 112 shown in figure 1. And, the specification as indicated above expressly describes the use of the computer processor 104 for implementing the functional instructions in suitable software in one embodiment.

Page 10, 11. 4+, describe in further detail the implementation of this means element, and expressly state that the

"material browser populates the drop-down filter lists 322 through 330 with entries obtained from a database containing information corresponding to the raw material types."

This description of the function associated with the populating means appears quite sufficient in accordance with the analysis presented above, including the three cases Atmel, Dossel, and Fonar. Clearly, this means element is effected by the corresponding hardware of the computer system, as specifically programmed with the software instructions.

It is quite apparent that the examiner has not afforded any weight to the requirements of MPEP 2106, 2106.01 and 2106.02 which specifically relate to computer-implemented inventions. In contrast to the examiner's voluminous presentation in the office action under MPEP 2181, the same office action is conspicuously devoid of any corresponding presentation under these three MPEP sections 2106. This is especially significant since these computer-related sections of the MPEP require special analysis for computer-based inventions.

It is equally quite apparent, as further addressed hereinbelow, that the examiner's primary basis for the several rejections is that any general purpose computer **could** be programmed in the manner recited in Applicant's claims, and therefore Applicant's claims would "inherently" be anticipated or rendered obvious thereover.

Yet, the examiner overlooks the obvious. When a mere computer (or CPU) is programmed with specific functions, then that computer is both expressly and inherently quite different than it was without such programming; and is also quite different than any other computer programmed differently.

Take for example, the ubiquitous word processing software. WordPerfect and Word are two popular examples; yet despite their similarities, they are quite different in not only performance, but in the software programs associated therewith.

And, WordPerfect itself and Word itself have undergone many revisions (versions), with each revision being quite different from the previous version, notwithstanding their similarities.

Yet, both programs are implemented in the ubiquitous computer, which computer when so programmed is fundamentally

different then when not so programmed.

Applicant's claims, including claim 22, recite apparatus and method based on the specific functions found therein, and is quite simply effected by the corresponding hardware, for which the examiner, without explanation, fails to afford due weight.

The examiner's requirement to "clearly link" the specification and claims is unsubstantiated, nor supported by any identified footnote or case law, or MPEP provision. And, the examiner's requirement overlooks the clear (linking) support found in the specification as indicated above for the first two means elements.

The claims and specification clearly use the Federal Circuit's "magic word computer," with the full import associated therewith when analyzing the claims both for support in the specification, and for differences over the art of record.

The examiner repeats the linking contention for the remaining means elements, which contentions are equally defective as those for the first two means elements.

Claim 22 additionally recites means 112 for displaying the material browser 300 including a plurality of filters 322-330 corresponding with the filter lists.

In para. 28 at page 22, the examiner repeats the contention that this element "is not clearly linked;" yet, the examiner himself readily finds that the "ordinary computer monitor is the corresponding structure."

So, why then does this element not meet Section 112, para. 2?

Applicant's specification at page 6, line 11, introduces the display 112 operatively joined in the computer system 100 and driven by processor 104 using the specific software instructions.

Page 8, 11. 18+, and page 9, 11. 15+, describe display of the filtered lists.

Page 10, ll. 4+, describe filter area 318 and lists 322 et seq.  $^{\circ}$ 

Clearly, these exemplary descriptions in the specification provide ample "linking" with the third recited means element; and the examiner has not shown otherwise.

Claim 22 additional recites means 104 for selecting one of the filter lists and specifying a filter criterion therein. In para. 29 of the office action, the examiner repeats his "not clearly linked" basis; yet, once again the examiner readily finds that "the computer operating system and mouse" could be the corresponding structure. So, again, why does this fourth means element not meet the requirements of Section 112, para. 2?

At page 5, 11. 3+, the specification describes the associated filtering or selecting process functions.

And, at page 10, 11. 4+, the filtering function is further described to permit the user to select "an entry in one or more of drop-down filter lists 322 through 330...."

The selecting element would then entail those features of the computer system, including the software specifically configured therein, to effect such selecting by the user. Quite clear in this regard is the use of the processor 104, and the specific software associated therewith.

Clearly, these exemplary descriptions in the specification provide ample "linking" with the fourth recited means element; and the examiner has not shown otherwise.

Claim 22 additionally recites means 104 for filtering the list of raw materials to obtain a filtered list thereof matching the filter criterion.

In para. 30 of the office action, the examiner repeats his "not clearly linked" basis; yet, once again the examiner readily finds that now "the CPU and software" could be the corresponding structure. So, again, why does this fifth means element not meet the requirements of Section 112, para. 2?

At page 5, 11. 3+, the specification describes the associated filtering process functions.

And, at page 10, 11. 4+, the filtering function is further described to permit the user to select "an entry in one or more of drop-down filter lists 322 through 330...."

The filtering element would then entail those features of the computer system, including the software specifically configured therein, to effect such filtering of the raw material list. Quite clear in this regard is the use of the processor 104, and the specific software associated therewith.

Clearly, these exemplary descriptions in the specification provide ample "linking" with the fifth recited means element; and

the examiner has not shown otherwise.

Para. 6b in the office action ends with element "v," and the examiner has overlooked the last means element.

That means element 112/302 is used for displaying in the browser 300 the filtered list of raw materials matching the filter criterion.

Apparently, the examiner has not rejected claim 22 for this element, since this element, like the ones previously discussed, has clear description in the specification, including the display 112, and the hardware and software specifically configured to perform the recited function.

Applicant traverses the examiner's contention in para. 6b(vi) that "various" in claims 16 and 31 is indefinite. The examiner contends that this word "is objective evidence of criteria in the claim other than simply 'customer applications criteria'." What doe this mean? And, why is the term indefinite?

The word various is synonymous with different, and such words have plain and ordinary meaning. The word "various" modifies "customer application criteria" as expressly recited in claims 16 and 31, and additionally limits those claims to ensure corresponding differences as disclosed in the specification.

For example, exemplary forms of the customer application criteria are presented at page 3, 11. 17+, and include: "print method, minimum application temperature for adhesive, service range of adhesive, facestock types, and adhesive type," all of which are different (various) from each other.

And, such various criteria are introduced in independent claims 15 and 22, yet the rejection does not apply to those claims. Why not?

What is the examiner's meaning to object to these terms in the dependent claims, yet not object to these terms in the independent claims? The examiner's evaluation is assumed to be thorough and based on the various rules, yet even a good faith attempt to interpret the examiner's meaning would necessarily require speculation, and speculation is no basis to reject claims.

Accordingly, the examiner has failed to substantiate this rejection, or provide a prima facie showing.

Applicant traverses the examiner's rejection of claim 18 as

presented in para. 6.b.vii. at page 5.

The syntax of the claim-clause requires additional storing with the list of raw materials: raw material information corresponding with each of said raw materials including: (1) information different than said customer application criteria and (2) information specific to permitted applications of said raw material in a product.

Page 3, 11. 17-20, present a list of the customer application data; and page 5, 11. 13-18 present another list of the raw material information which is different than the customer application data and information specific to permitted applications of the raw material in a product.

Accordingly, claim 18 meets the requirements of Section 112, para. 2, especially when read in light of the specification, and the examiner has not shown otherwise.

It is noted that claims 16 and 18 in para. 6b are not listed in the rejection presented in para. 6. It is assumed that the examiner intended to so list them there.

It is further noted that dependent claims 32-39 have not been specifically addressed by the examiner.

Claims 32-35 & 39 recite the apparatus using means-for elements corresponding with the functions in corresponding method claims 17-21. Suitable (linking) description for these claims was presented at pages 24-26 of the 10/21/02 amendment, and amply supports the description requirement under Section 112, para. 2.

Claims 36-38 correspond with canceled claims 27-29, and have suitable (linking) description in the specification as presented at pages 26 & 27 of the 10/21/02 amendment, which also amply supports the description requirement under Section 112, para. 2.

In view of these exemplary remarks, reversal of the rejection of claims 16, 18, 22, and 31-39 under 35 USC 112, second paragraph, is warranted and is requested.

# ISSUE 2

Issue (2) - whether claims 22, 31-33, and 39 are unpatentable under 35 USC 102(e) over Salvo et al.

Firstly, it is noted that the examiner later presents in

paragraphs 17-30 various positions regarding the various claims and various rejections, with no clear nexus thereto, which renders review thereof subject to further speculation by the Applicant, as well as the Board.

Secondly, the examiner has taken advantage of Applicant's petition on restriction, and the Director's decision, to present the additional rejections now found in paras. 10, 12, 13, and 14 in contravention to the compact prosecution edict of the MPEP.

Why were these additional rejections not presented earlier? We are now at the fifth office action on the merits, which is the third final office action, and yet the examiner cannot maintain a consistent basis of rejection, and finds opportunity, at Applicant's good faith attempts in responding to numerous errors committed by the examiner, to increase issues for decision by the Board, not decrease such issues.

The apparent acrimony by the examiner in the line of rejections is palpable. The gratuitous remarks by the examiner (later addressed) are inappropriate and unwarranted. And, the distortions of this attorney's remarks are without merit.

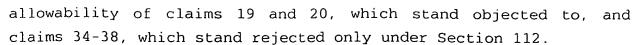
The patent rules require Applicant to remain respectful to the examiner in traversing rejections, and professional courtesy requires the converse. Why then has the examiner strenuously slammed shut the door to negotiation in para. 39 of the office action?

The examiner emphatically states that he "has never read or even heard of negotiating a 'settlement to an application.'"

To be sure the examiner is well aware of the MPEP, and MPEP 713 et seq therein permits interviews. And, interview practice is notoriously well known in which an examiner and an agent discuss the application, claims, pending rejections, and commonly attempt to negotiate a settlement to the application.

Has the examiner "never heard" of such interviews? Or, is the examiner's objection based on semantics? The lengthy record is quite clear that this examiner and this attorney clearly cannot agree to anything; now it is up to the Board of Appeals to decipher the conflicting opinions.

The only consolation in this protracted prosecution is that the examiner finally presents in paras. 31 and 32 the potential



It is noted that claims 34-38 are species claims which contain allowable subject matter; and that these species claims may be used in interpreting the claims from which they depend in distinguishing over the art of record.

The examiner's reasons for rejecting the claims under Salvo are presented in the two short paras. 8 and 9, conspicuously lacking evidentiary support; and conspicuously failing to address all features in the five disparate claims 22, 31, 32, 33, and 39 being rejected; and conspicuously relying on features merely stated as being "inherent," without any evidentiary support.

In footnote 2, the examiner recognizes MPEP 2112, but has failed to comply with the requirements therein. The examiner's mere contention of "inherency" overlooks express claim limitations, and is not based on any evidence in the reference to support such inherency.

MPEP 2112 cites many cases which require significant showings by the examiner, and with which the examiner has not complied.

MPEP 2112 provides in **BOLD** print that: "a rejection under 35 U.S.C. 102/103 can be made when the prior art product **SEEMS** to be identical except that the prior art is silent as to an inherent characteristic."

Citing In re Rijckaert, MPEP 2112 further states that:

"[t]he fact that a certain result or characteristic may occur or
be present in the prior art is not sufficient to establish the
inherency of that result or characteristic."

It appears that the fundamental basis to the examiner's rejection made primarily on inherency is that "virtually any personal computer including controller 114" is configured with corresponding hardware which can be programmed in any manner whatsoever, and therefore there can be no novelty in such a computer.

However, the examiner conspicuously overlooks the **FUNCTIONAL** requirements of Applicant's claims, which functional requirements breath not only life and vitality into the computer, but into Applicant's recited invention. See for example, MPEP 2106 at page 2100-21 as addressed above.

In paras. 18 and 19 the examiner admits that he has "given little patentable weight" to the functional recitations in the apparatus claims, notwithstanding the statutorily permitted meansplus-function elements therein. The examiner appears to exclude the "not 'means for'" functional recitations, but fails to make any differentiation of the elements in the various claims.

The examiner even cites **old** case law (1967 and 1963) in support of his position, but such case law predates both In re Donaldson, and the provisions of MPEP 2106 et seq; and the examiner has not shown how that old case law in any way supersedes or overrides modern examination of computer-implemented inventions.

It has been held that anticipation cannot be made on mere conjecture (W.L. Gore & Associates, Inc., v Garlock, Inc., 220 USPQ 303, 314, Fed. Cir., 1983, cert. denied, 469 U.S. 851 (1984)). Furthermore, it is stated in General Tire & Rubber Co. v Firestone Tire Co., 174 USPQ 427, 442-443, D.Ct., Ohio, 1972, affirmed in part, 180 USPQ 98, Ct. Ap., 6th Cir., 1973, that:

"The standards of anticipation are strict. The invention must be disclosed within the four corners of a single reference. If a reference is silent or ambiguous with respect to an element of the invention, that gap cannot be filled by assumption or by combining one reference with another. An anticipating reference must teach the invention; it is not sufficient to point to its silence or ambiguity after the invention and argue that the invention could be made out from reference."

The examiner's rejections under Section 102 clearly require assumption and mere allegations of "inherency", and fail to identify in Salvo any computer implemented apparatus which is configured in the same was as Applicant's claims, and functions in the same manner, to produce the same result.

Claim 22 recites an apparatus for selecting a raw material for manufacturing a product therefrom including means for storing in a computer system a list of different raw materials, with each of the raw materials having various customer application criteria stored therewith, and the criteria being indicative of intended application of the raw material in a product.

The apparatus is therefore a computer implemented design tool to create a specific product with specific construction with specific properties.

This is in stark contrast with Salvo which discloses a mere "inventory management system," which is clearly not a design tool, nor can be so used.

The examiner's cursory recapitulation of claim features in para. 8 clearly fails to address all limitations found in these claims; and therefore fails the "every limitation" standard found in MPEP 2106, at page 2100-9; and the "Functional descriptive material ... limitation" standard found at page 2100-21.

The examiner's failure (paras. 18 and 19) to afford due weight to the express **functional features** of the claims also fails to meet the corresponding requirements under MPEP 2106, at page 2100-13 for example.

This provision of the MPEP expressly relates to computerimplemented inventions and validates the propriety of "Functional Descriptive Material." In particular, this provision provides:

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

MPEP 2106 at page 2100-19 cites the very Amtel case used by the examiner in the Section 112 rejection to explain the plain requirement that:

A means plus function limitation is distinctly claimed if the description makes clear that the means corresponds to well-defined structure of a computer or computer component implemented in either hardware or software and its associated hardware platform.

As indicated above, Applicant's specification amply meets this standard.

And, quite significantly, MPEP 2106 at page 2100-21 addresses the special requirements in evaluating computer-implemented inventions under Sections 102 and 103. In particular, this



section mandates that:

Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus, a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless the functional descriptive material would have been suggested by the prior art. [citing In re Dembiczak]

Note. descriptive material that the functional must be afforded due weight under Section 103 (later addressed hereinbelow) as well as under Section 102 in accordance with this specific MPEP provision, as well as applicable case law.

Examples of the criteria are found at page 3, 11. 17+, and include print method, minimum application temperature for adhesive, service range of adhesive, facestock types, and adhesive type for pressure sensitive label products.

This means element must be specifically configured in the computer system to store such criteria, which requires corresponding software specific thereto.

This is in stark contrast with the mere inventory management system of Salvo. In Salvo, actual inventory 150 is stored in receptacles 104 which are connected to the processor 102. An amount indicator 108 senses the corresponding inventory amount 151.

The amount 151 is sent to a site controller 112, which in turn is connected to the control unit 114. The control unit 114 includes software specific to mere inventory management, which includes the amount (151) of inventory and price source 126.

Neither the amount value or price value meet the various customer application criteria found in claim 22, and neither value is indicative of an intended application in a product.

It would appear that the examiner has afforded no weight to this functional capability in claim 22 since the examiner's position is that general purpose computers can be programmed inherently in any manner.

Yet, that is not the test of Section 102.

Section 102 requires identity of elements, arranged in the same manner as recited in a claim, and functioning in the same

manner to produce the same result.

Could the inventory management system of Salvo be operated (without changing the software thereof) to perform the functions recited in claim 22? Of course not; and this would be clear to one skilled in the art.

Claim 22 further recites means for populating a plurality of filter lists corresponding with the stored customer application criteria for the different raw materials. The examiner has not identified any such capability in Salvo, since Salvo is configured quite differently for mere inventory management.

What is inventory management? Nothing more then keeping track of the gross number of individual inventory items in store. Any hardware store has a multitude of items on its shelves for purchase by consumers; and no doubt has a computerized inventory management system therefor.

But, can that inventory management system be used in the manner recited in claim 22 in selecting raw material for manufacturing a product therefrom? Of course not.

Claim 22 further recites means for displaying a material browser including a plurality of filters corresponding with the filter lists.

The examiner recognizes the "computer monitor inherent in any computer," but the analysis cannot stop there for the examiner has failed to address the configuration of the computer to display the recited material browser.

Salvo clearly discloses an inventory management system, and it would appear that any monitor used therein would be configured to display a list of inventory items based on their quantity or price. But, where are the displayed material browser and filters disclosed in Salvo?

The examiner has failed to show any display capability of filter lists in Salvo since they are not germane therein.

Claim 22 recites means for selecting one of the filter lists and specifying a filter criterion therein. Yet again, the examiner's simplistic use of the "computer having a mouse" fails to address the recited filter lists and criterion.

Of course a computer may have a common mouse for input, but of what value is that mouse to a computer having no software at

all? And, when programmed with application software, is not the function of that mouse dependent on the functions built into the software?

So, different software has different capability, this is fundamental. Yet, the examiner overlooks this distinction in rejecting the claims, which is clear error.

Claim 22 further recites means for filtering the list of raw materials to obtain a filtered list thereof matching the filter criterion. The examiner now uses the "CPU with control unit 114," but the examiner has again failed to afford any weight to the additional recitation in this element.

Where does Salvo explicitly or inherently disclose that the control unit 114 is so programmed? To the contrary, the control unit receives the inventory amount signal 151 for simple inventory control. No filtering, no filtered list, and no matching filter criterion is disclosed or suggested in Salvo; and the examiner has not shown otherwise.

Claim 22 further recites that the displaying means are further configured for displaying in the browser the filtered list of raw materials matching the filter criterion. Yet the examiner merely contends that Salvo includes a display, but without any evidence or support in Salvo as to what might be displayed thereon.

Clearly not a material browser; clearly not filtered list of raw materials matching the filter criterion.

The examiner's rejection of claim 22 amounts quite simply to the mere proposition that "any personal computer including the controller 114" could be programmed to function in the manner recited in Applicant's claims; but that is not the test mandated by Section 102.

Section 102, and the applicable MPEP provisions, require much, much more; and the examiner's failure to afford any weight to the expressly recited functional capability of Applicant's claims is clear error. The sine qua non of computer-implemented inventions is the different **functional** capability thereof, notwithstanding the examiner's contention that "any personal computer" might be programmed in any manner.

The computer system disclosed in Salvo is quite different

than that disclosed in Applicant's specification, and recited in the claims, and the examiner's mere contentions do not support otherwise.

Claim 31 recites that the displaying means are further configured for displaying also in the browser the various customer application criteria corresponding with each of the raw materials in the filtered list as disclosed at page 9, 11. 22+.

The examiner has failed to explain where in Salvo this capability is disclosed, or anticipated. Apparently, the examiner relies solely on the "computer monitor inherent" in Salvo, without regard to how the various controllers are configured to operate in Salvo.

In para. 19 of the office action the examiner admits that "little patentable weight" has been given to the functional limitations, when in reality no weight whatsoever has been given to the functional features of the claims, notwithstanding the inherently functional nature of computer-implemented inventions.

The examiner also suggests in para. 19 that "simply 'displaying' instead of 'configured for displaying' should be used in the claims "if a positive recitation is desired." On what authority in the MPEP or case law is this suggestion based? And, how should this be done specifically?

Claim 31 depends from claim 22 and further limits that claim. In particular, claim 31 recites that "said displaying means are further configured for displaying also in said browser said various customer application criteria corresponding with each of said raw materials in said filtered list." How should this claim be rewritten in accordance with the examiner's "simply 'displaying'" suggestion? And, why?

Since the displaying means recited in claim 31 are controlled by corresponding software instructions as disclosed in the specification, then those instructions must be **further configured** to include the additional functional capability recited in this claim.

Accordingly, the form of claim 31, as well as the other dependent claims which use similar recitations, appears quite reasonable and acceptable under Section 112, and provides additional functional limitations which clearly distinguish over

Salvo.

The examiner's aversion to functional language is quite inconsistent with MPEP 2173.05(g) which expressly states that: "There is nothing inherently wrong with defining some part of an invention in functional terms."

In fact, functional features in claims are notoriously well known, and can well distinguish claims over applied art. This is especially true in view of the statutorily permitted means-plus-function language which prior to In re Donaldson was not afforded due weight in common USPTO examination practice.

And, MPEP 2106, which is specifically relevant to computerimplemented inventions expressly recognizes the viability of "functional descriptive material" as suitable claim limitations, yet the examiner clearly does not.

Claim 32 recites that the selecting means are further configured for selecting a plurality of the filter lists and selecting corresponding filter criterion therefor; and the filtering means are further configured for filtering the list of raw materials to obtain the filtered list thereof matching the filter criteria corresponding with the selected filter lists as disclosed at page 10, 11. 4+.

While not specifically addressing this claim, the examiner appears to contend in para. 8 that "an ordinary personal computer having a mouse" can be used for selecting lists. But, how is this relevant to claim 32, or to the express teachings of the Salvo reference being applied by the examiner?

As indicated above, the Salvo system is configured specifically for inventory management using the inventory amount 151 or price source 126; yet where does Salvo teach that that system is configured in the manner recited in claim 32? There is no functional or logical nexus between the inventory configuration of Salvo and the specific functional limitations found in claim 32, and the examiner has not shown otherwise.

Claim 32 recites the specific functional capability of selecting and filtering which is embodied in the corresponding means using software; and Salvo clearly does not disclose, or suggest, such software or functional capability.

Claim 33 recites that the storing means are configured for

additionally storing with the list of raw materials raw material information corresponding with each of the raw materials including information different than the customer application criteria and information specific to permitted applications of the raw material in a product;

the selecting means are further configured for selecting one of the raw materials from the filtered list; and

the displaying means are further configured for displaying in the browser the raw material information corresponding with the selected raw material as disclosed at page 2, 11. 24+; page 4, 11. 1+; page 5, 11. 13+; page 10, 11. 17+; and page 15, 11. 7-10.

The examiner has clearly overlooked these express functional features by admittedly affording little, if any, weight thereto, in contravention with the applicable MPEP provisions, including 2106 addressed above.

In Salvo, simple inventory amount 151 is disclosed, along with the price source 126, because a plain inventory management system is configured in the hardware, and the corresponding function thereof is specific thereto.

Claim 32 recites the functional capability embodied in the computer system to additionally store different and specific information therein, examples of which information is found in the specification.

Unless the inventory system of Salvo were specifically configured and programmed for such function, then that function is neither inherent therein, nor express, and the examiner has not shown otherwise.

Claim 39 introduces means for sorting the filtered list by unit cost of the raw materials as disclosed at page 10, 11. 25+. This functional capability may be effected by the software instructions programmed into the computer system, and therefore introduces additional functional capability to that system.

The examiner has overlooked this claim, and the inventory price source 126 in Salvo is clearly not the same as unit cost; nor is the inventory management system disclosed in Salvo configured to perform the functions recited in claim 39 since it has a different purpose.

The examiner presents para. 9 regarding the "relational

database," yet does not explain the relevance of this contention to either any one of Applicant's claims, or to Salvo.

Of course databases are notoriously well known, and of course relational databases are notoriously well known. So?

Section 102 requires a strict correspondence of elements in a single claim with a single reference; and the examiner has clearly fail to establish any such correspondence between Applicant's claims and the Salvo reference.

If the inventory management system in Salvo were devoid of software so that it would not function at all, would the examiner still contend in paras. 8 & 9 that such system anticipated Applicant's claims because it includes hardware such as a hard drive, memory, control unit 114, monitor, personal computer, mouse, and CPU, (from the examiner's listing)?

Clearly, he could not.

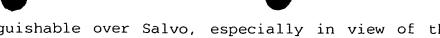
And, when the inventory management system in Salvo is loaded with software specific to the functions disclosed therein, could that system be used for withdrawing money from an ATM, or controlling operation of a Nuclear Magnetic Resonance imaging machine? Of course not.

So, on what basis does the examiner contend that the system in Salvo loaded with the software specific to the functions disclose therein could or would enjoy the functional capability expressly recited in Applicant's claims?

The examiner's expedient of simply contending "inherency" to support the rejection fails to meet the express requirements of MPEP 2112. All computers may "seem to be identical," yet the examiner's failure to recognize the specific programming of the computer in Salvo undermines his inherency expedient. Two otherwise identical computers are quite different under Section 102, and 103, when programmed with **different** functional capability.

It is quite clear that the examiner has not afforded any weight to the software implementation of Applicant's claims, and the specific functional capabilities thereof, which renders the rejections unwarranted.

And, it equally clear that the claims as recited with their expressly recited functional capability in the computer system are



patentably distinguishable over Salvo, especially in view of the corresponding requirements in MPEP 2106.

It is further noted that the Salvo reference includes SEVENTY-ONE (71) system and method claims specifically related to a network-based inventory management system, and, like Applicant's claims, includes functional limitations in those claims. But, unlike Applicant's claims, those functional limitations are specific to the DIFFERENT functional capability of that system.

Clearly, even a cursory review of this issued patent will provide additional evidence of not only the compliance of Applicant's claims with Section 112, but the fundamental differences thereof over the disparate system of Salvo, especially as embodied in the claims thereof.

Accordingly, reversal of the rejection of claims 22, 31, 32, 33, and 39 under Section 102(e) over Salvo et al is warranted and is requested.

### ISSUE 3

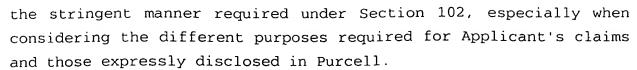
Issue (3) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 102(e) over Purcell ('807).

Like the previous rejection, the examiner merely uses Purcell for the computer system therein, without regard to the functional limitations expressly recited in Applicant's claims. This is clear error.

The failure of the examiner to afford any weight (paras. 18 & 19) to the functional limitations in Applicant's claims is further emphasized by the examiner's need to apply Purcell with the mere contention that certain features are "inherent" therein (para. 10).

"Inherent?" The examiner yet again utilizes this expediency at least SIX (6) times in the omnibus rejection presented in para. 10, without any justifiable basis in accordance with the specific provisions of MPEP 2112.

As indicated above, Applicant's claims recite specific functional capability, and it is absolutely impossible for Purcell to "inherently" include the requisite functional capability to match the expressly recited functional capability of the claims in



Section 102 requires identity of each and every element, functioning in the same manner to produce the same result; and the examiner has done nothing more than apply Purcell for its computer system, irrespective of the functional capability programmed therein. This is error.

MPEP 2106, and its various provisions have been addressed above, and apply equally as well in this rejection under Purcell.

Independent claim 15 recites a computer implemented method of selecting raw materials for manufacturing a product therefrom, and claims 16-18 depend therefrom. Independent claim 22, described above, and its dependent claims, is the apparatus counterpart thereto, using the corresponding means-plus-function elements.

The two claim sets have correspondingly different scope as method and apparatus, and were the subject of the examiner's own restriction requirement therefor, and must be separately analyzed under Section 102; yet the examiner has not.

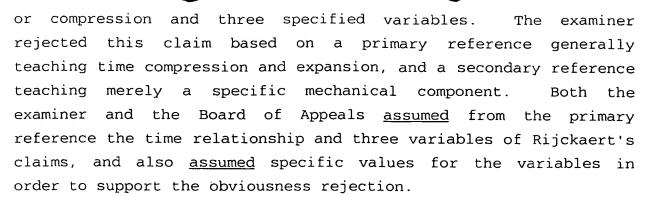
The restriction requirement for the method claims was reversed and withdrawn by the Director, and the examiner now uses the simple expedient of grouping these claims with the apparatus claims, without addressing the inherent differences therebetween, or any of those claims individually.

The examiner has afforded little, if any, weight to the functional limitations in the apparatus claims (paras. 18 & 19); and has made no distinction of using such functional limitations in the method claims, which are per se functional.

MPEP 2116 & 2116.01 emphasizes that  $\underline{All}$  limitations of a claim must be considered, including the material manipulated in the process.

Yet, the examiner conspicuously overlooks the functional features of now both the apparatus claims and the method claims, and relies on "inherency" when there is no reasonable basis to support such a reliance.

Independent claim 11 in In re Rijckaert, 28 USPQ 2d 1955, 1956 (Fed. Cir. 1993) (cited in MPEP 2112) recites a magnetic recording apparatus having a relationship between time expansion



The Court of Appeals agreed with Rijckaert that the "examiner's assumptions do not constitute the disclosure of prior art." The Court then listed the many limitations of the Rijckaert claims not specifically disclosed by the references, but improperly assumed as inherent by the PTO, and referenced In re Yates for the position that [emphasis added]:

When the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference.

In the present rejection found in para. 10, the examiner states at least six times that certain features are "inherent," when, to the contrary, there is no evidence to support this. Accordingly, the examiner has failed to establish even a prima facie showing, and the entire rejection must be reversed.

Claim 15 recites a computer implemented method of selecting a raw material for **manufacturing** a product therefrom, which corresponds with the apparatus recited in claim 22.

This is in start contrast with Purcell which specifically relates to an inventory information exchange system "for creating a depository for sellers to indicate inventory availability and a source for buyers to access to review those seller's inventories for purchase purposes," col. 1, 11. 18+, [emphasis added]. The available information is limited and restricted as disclosed at cols. 6 & 7.

Claim 15 recites storing in a computer system a list of different raw materials, with each of the raw materials having various customer application criteria stored therewith, and the criteria being indicative of intended application of the raw

material in a product.

These are different, but related items of information and functional capability in the claim.

The examiner simply references "the operating system" in para. 10, without more, and without affording any weight to the specific criteria stored or its intended application.

Independent claim 15, like claim 22, recites customer application criteria (318) for the raw material, and intended application which appear to be lacking in Purcell. These two features are separately recited, and are correspondingly different from each other, and it is not seen how the examiner can apply Purcell for both such features in the cooperation recited in Applicant's claims, especially when the examiner conspicuously fails to address these features at all.

The examiner simply opines that Purcell stores a list of raw materials, without stating which. Then states that "each of the raw materials (inherent in the items offered for sale in the system) having customer application criteria stored within (e.g. description of product). Yet, these are different items of information which the examiner mixes without support in Purcell. Is the "raw material" identified by the "description of the product" or is it identified by the "customer application criteria?"

Claim 15 is quite sophisticated in terms, and meaning, and especially when read in light of the specification. The analysis thereof may be difficult to the examiner, note the Section 112 rejections and the "as understood by the Examiner" contention in para. 10, but that sophistication requires the examiner to expend the commensurate amount of time in studying the claimed invention and understanding the cooperation of elements in the claims.

A brief or cursory review of the claims, and the elements thereof, and their meaning will just not be adequate. And, the examiner's omnibus rejection of the several claims is plain evidence of failing to afford due weight to the express features found in the claims.

Purcell presents one example at col. 9, 11. 23+, including standard information in a plurality of fields. The seller's product information exchanged is "casing piping of various sizes,"

cket NCR-8778

wall thicknesses, and thread specifications."

At col. 9, 11. 51+, the buyer's choice is limited to tubing casings corresponding with casing pipe.

How then does Purcell disclose, or suggest, the disparate criteria and intended application recited in claim 15, when no such features appear disclosed therein? Even the broad interpretation of both Applicant's claims and Purcell, cannot be used to disregard the fundamental differences therebetween.

Purcell clearly discloses an "inventory information exchange system" with limited access between the sellers and buyers. For the casing pipe example disclosed in Purcell, does the system provide customer application criteria and intended application thereof? Does the system help the sellers manufacture a product by providing application data?

Of course not. The system in Purcell merely provides access to inventory information, without regard to how the buyers use such information or products being sold, or what the buyers might manufacture with such products.

The differences in information used in claim 15 over the information found in Purcell are quite significant, and the examiner has afforded no weight to such information in claim 15.

Again, it appears that the examiner's fundamental position is that Purcell discloses "a computer system," and it would be at least six (6) times "inherent" in that system that that system in fact is configured in the identical manner as recited in claim 15. This is clear error; and the examiner's need to rely on "inherency" six times is overwhelming evidence of the failure to meet the stringent requirements under Section 102.

"Inherent," perhaps one time might be plausible in the right application (not this application); but, six times? Clearly not.

The examiner's contentions are conspicuous in failing to identify specific features in Purcell corresponding with specific features in Applicant's claims. The mere recapitulation by the examiner in para. 10 of Applicant's own claim elements does not mean that such elements are found in Purcell; and the rejection therefore lacks evidentiary substantiation.

Claim 15 also recites populating a plurality of filter lists corresponding with the stored customer application criteria for



the different raw materials. The examiner has overlooked this element in para. 10.

Col. 7, 11. 1+, of Purcell disclose "filtered" listing, but there is no nexus to populating filter lists in claim 15, which must correspond with the customer application criteria.

Claim 15 further recites displaying a material browser including a plurality of filters corresponding with the filter lists.

The examiner fails to afford due weight to this element, and simply opines "buyers' filters."

As indicated above, Purcell discloses at col. 7 filtered listing, but how is that relevant to claim 15, and where is the teaching that that filtered listing is the functional equivalent of displaying in the browser a plurality of filters corresponding with filter lists.

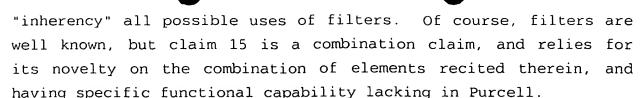
This element of claim 15 is much, much more than the examiner's cursory interpretation thereof, and the examiner has not shown otherwise.

Claim 15 recites selecting one of the filter lists and specifying a filter criterion therein. In this regard the examiner merely contends in para. 10 "inherent in the buyers' filters." How so? Where is the evidence of this? And, what "buyers' filters" does the examiner find in Purcell, and where?

Col. 6, ll. 63+, of Purcell clearly discloses that the:
"withdrawn information is then compiled to present a uniform
product listing that may include a listing of each product of each
seller, or alternatively the listing may be filtered to show a
unified listing of products wherein each product has a single
entry regardless of the number of sellers...."

This expressly teaches mere final lists of products, with no reason or capability for the sellers to filter them for some purpose. Recall in Purcell, that access to the system is limited, and the functional capability is correspondingly limited to viewing those final lists. Purcell teaches an inventory information system, not an interactive design system manufacturing products.

The examiner's finding of the mere word "filter" in this, or any other reference, is clearly not evidence to support by



Claim 15 recites filtering the list of raw materials to obtain a filtered list thereof matching the filter criterion.

Yet again, the examiner simply contends in para. 10 "inherent in the buyers' filters," yet, as indicated above, this is clearly not the case, and the examiner has not shown any evidentiary basis to support this bald contention.

Note that the filtering limitations are found in five of the process elements in claim 15 in different functional capability; yet the examiner attempts to rely on the mere finding of the single "filtered" concept in Purcell, and extrapolates therefrom under the guise of "inherency." This is clear error.

Each and every limitation in each and every claim must be evaluated in light of the specification no matter how difficult that might be, and the examiner has clearly not done this.

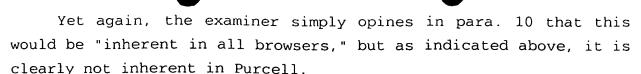
Claim 15 lastly recites displaying in the browser the filtered list of raw materials matching the filter criterion.

Yet, as indicated above the examiner has failed to differentiate between the different process elements in claim 15 and the different cooperation of the filter limitations therein.

Of course, col. 7 of Purcell discloses that the product "listing may be filtered," but that is the end listing to be presented. The examiner has not shown that Purcell permits the buyers access to computer function prior to such final listing. And, note quite conspicuously that Purcell discloses at col. 7, ll. 8+, that "each product listing has a single entry." Single entry.

Where then is the multiple information accessible to the buyer in Purcell? Claim 15 recites a list of different raw materials, various customer application criteria, and criteria indicative of intended application. How then can the single entry in Purcell meet all these different requirements?

Claim 16, like claim 31, further recites displaying also in the browser the various customer application criteria corresponding with each of the raw materials in the filtered list.



At col. 9, 11. 51+, in Purcell, the buyer can specify search criteria limited to the casing pipe example. Yet, the examiner has not shown any nexus with the specific customer application criteria recited in claim 16, including the cooperating filter elements addressed above.

Purcell clearly discloses one type of search criteria, but, of course, searching in computer-implemented inventions is notoriously well known.

The real issue is the specific combination of elements recited in claims, and whether that specific combination is disclosed in a single reference.

As indicated above, plain word processing software is found in different versions from the same manufacturer, and those different versions have not only similar capabilities, but different capabilities. The latest version would clearly not be anticipated by the earlier version in view of the inherent differences therebetween.

And, even though those two versions had filtering features therein, it would not be inherent that those filtering features would anticipate each other.

To be sure, almost any difference in the intended purpose and function of software-implemented inventions necessarily requires different configurations thereof, expressed in different functional capabilities, and even expressed in minor changes of software, yet such software would inherently be **different** under Section 102.

The purpose recited in Applicant's claims is fundamentally different than the purpose found in Purcell, and therefore the resulting computer systems and methods of operation would necessarily be different.

Affording due weight to Applicant's recited elements, when read in light of the specification, will clearly support this.

Claim 17, like claim 32, further recites selecting a plurality of the filter lists and selecting corresponding filter criterion therefor, and filtering the list of raw materials to

obtain the filtered list thereof matching the filter criteria corresponding with the selected filter lists.

The examiner appears to have overlooked this claim; but his contention in para. 10 that "each buyer can select at least one list" is presented for the plurality of filters.

However, claim 17 recites two separate elements, and specific cooperation thereof including plural filter lists, filter criterion therefor; and the correspondence therewith with the customer application criteria and intended application.

The examiner has not identified in Purcell any evidence relevant to this combination, when, to the contrary, Purcell is configured differently and operates differently. See for example, the exemplary operation at col. 9, 11. 51+, in which the search is limited to "tubing casing" only.

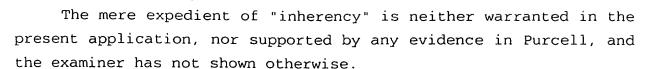
Claim 18, like claim 33, recites additionally storing with the list of raw materials raw material information corresponding with each of the raw materials including information **different** than the customer application criteria and information **specific** to permitted applications of the raw material in a product; selecting one of the raw materials from the filtered list; and displaying in the browser the raw material information corresponding with the selected raw material.

The examiner has yet again overlooked the details of this claim, and blurs the distinction between the different types of information being recited in this claim.

The examiner contends in para. 10 at page 7, that the "customer application criteria [is] (inherent in all browsers)." This is clear error, and the examiner has failed to provide any support in Purcell.

At the beginning of para. 10, the examiner first opines that the "customer application criteria stored [is] (e.g. description of the product)." The examiner must use only one definition in a Section 102 rejection to avoid creating confusion. Which is it? Inherent, or description...?

As indicated above, the collective features recited in dependent claim 18 must be read in light of the specification, and given reasonable, and consistent, interpretations, which the examiner has overlooked in rejecting the claims.



The examiner has not identified in Purcell any support for the different information "price, delivery information, availability," nor has the examiner shown that such information qualifies as the "raw material information" recited in the claims "for manufacturing a product therefrom."

And, the examiner has again overlooked the "information specific to permitted applications of said raw materials in a product." How are "price, delivery information, availability" specific to permitted applications of the tube casing example in a product?

The examiner again contends in para. 10 that "sorting the filtered lists [would be] (inherent since the listings would be alphabetical)." Yet, how is this relevant to the specific recitations in claim 18, or any other claim?

In claim 18, one of the raw materials is selected from the filtered lists, and displayed along with the corresponding raw material information. Where is this disclosed in Purcell?

At col. 10, line 10, of Purcell, the buyer listing is displayed and indicates product and service availability. How does this meet the claim 18 process and resulting display of raw material information corresponding with the selected raw material?

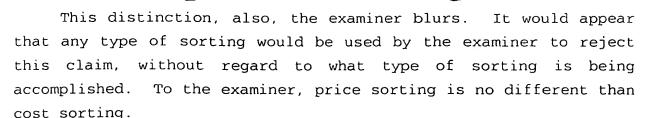
The raw material information and selected raw material are two different items in claim 18, and the examiner blurs the distinction therebetween.

Claim 21 recites sorting the filtered list by unit cost of the raw materials. The examiner's mere contention in this regard of "unit by cost" is not supported by any evidence in Purcell.

Col. 4, line 14, of Purcell discloses "sale price," yet sale price and unit cost are two different items.

Will the software inherent in Purcell present to the buyer a display listing "unit cost" of the seller, or will it list "sale price?" Of course, the latter.

This means that the software in Purcell would inherently be configured to store price data, identify such data as price date, and display such data as sale price; clearly not unit cost.



However, they are nevertheless different, and the software would necessarily be different; and anticipation under Section 102 cannot be made.

As indicated above, independent claim 22 is the apparatus counterpart of method claim 15. It, too, is fundamentally different than Purcell for the reasons stated above.

Claims 31-33 are the apparatus counterparts of method claims 16-18, and they too are fundamentally different than Purcell for the reasons stated above.

And, claim 39 is the apparatus counterpart of method claim 21, and is fundamentally different than Purcell for the reasons stated above.

Furthermore, apparatus claims 22, 31-33, and 39 also expressly recite in the preamble an apparatus for selecting raw material for manufacturing a product therefrom; and the body of the claims refers back to and further limits the cooperation therewith.

In accordance with MPEP 2111.02 the preamble breaths life and meaning to the claims, and must be afforded due weight in combination with the cooperating elements specifically recited therein.

As indicated above, MPEP 2116 applies to method claims 15-18 and 21, and affords additional weight to the features recited in those claims.

Accordingly, reversal of the rejection of claims 15-18, 21, 22, 31-33, and 39 under Section 102(e) over Purcell ('807) is warranted and is requested.

#### ISSUE 4

Issue (4) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 103(a) over Salvo.

First it is noted that claims 15-18 and 21 have not been



rejected under Section 102(e) over Salvo, and the examiner's "alternatively" rejection thereof as presented in para. 12 is clearly not so.

Secondly, this omnibus rejection of the many, many claims of different scope in merely 3 and 1/4 lines of text is evidence in and of itself of the failure by the examiner to present the requisite and thorough analysis of these claims under the MPEP, and the rejection therefore lacks substantiation.

In para. 14 of the 12/17/02 office action, the examiner argued in making the restriction requirement that method Group III (claims 15-18 and 21) and apparatus Group IV (now claims 22-39) were (patentably) distinct "because the search required for Group III is not required for Group IV, and because the inventions have acquired a separate status in the art because of their recognized divergent subject matter...."

Yet, now the examiner merely joins together both groups of claims in the common omnibus rejection presented in para. 12 using the common reference Salvo (previously cited in the 3/27/03 office action) without regard to his previous contentions of different search, or art recognized divergent subject matter.

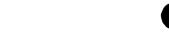
This is evidence that Salvo is non-analogous art.

More specifically, the scope of the prior art may be determined from applying In re Wood and Eversole, 202 USPQ 171, 174 (CCPA, 1979):

The determination that a reference is from a nonanalogous art is therefore twofold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.

Salvo is non-analogous art since it relates to a mere inventory management system; whereas the endeavor in Applicant's application is selecting raw materials for manufacturing a product in a computer-design system.

And, the particular problem in Applicant's invention is the plethora of raw materials available (in inventory) which can be arranged and manufactured in a multitude of mere possibilities,



and the substantial investment of time therefor in so doing manually.

The various problems expressly found in cols. 1 & 2 of Salvo are clearly not relevant to Applicant's problem since Salvo relates merely to the inventory management system itself, and provides no help to those using the inventory management system in how to design their products using the various items which might be found in that inventory system.

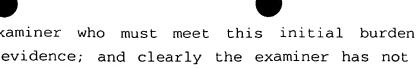
The examiner's repeated expediency of "inherency" found in para. 12 is without evidentiary basis as presented above, and fails to recognize the fundamental, and significant differences between Applicant's invention and the mere inventory management system of Salvo.

Furthermore, the examiner's 3 and 1/4 lines of mere conclusion fail to meet the stringent requirements of the MPEP in supporting the rejections under Section 103.

More specifically, MPEP 706.02(j) provides the requirements which must provided by be the examiner in establishing prima facie obviousness under 35 U.S.C. 103. steps are required of the examiner including: (1) relevant teachings; (2) claim differences; (3) proposed modification of the reference(s) to arrive at the claimed subject matter; and (4) an explanation the proposed modification would have been obvious under Section 103.

The MPEP also requires a showing by the examiner of three basic criteria to establish a prima facie rejection including: first, evidence for the suggestion or modification for modifying or combining references; second, a reasonable expectation of success; and finally, the reference(s) must teach or suggest all the claim limitations, and cannot be based on Applicant's own disclosure.

Citing Ex Parte Clapp, the MPEP places the burden of proof on the examiner to provide evidence to support the conclusion of obviousness either from the references which must expressly or impliedly suggest the claimed invention, or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.



It is the examiner who must meet this initial burden by applying specific evidence; and clearly the examiner has not met this burden with the unsupported "inherent" alternative conclusion fails to meet obviousness, which the stringent motivation" requirements of MPEP ch. 2100.

Furthermore, as indicated above, MPEP 2106 at page 2100-21 addresses the special requirements in evaluating computerimplemented inventions under Sections 102 and 103. In particular, this section mandates that:

Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus, a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless the functional descriptive material would have been suggested by the prior art. [citing In re Dembiczak]

In re Dembiczak, 50 USPQ2d 1614 (Fed. Cir. 1999), emphasizes the evidentiary showing required by the USPTO in supporting an obviousness rejection for avoiding impermissible hindsight. USPTO rejected as obvious claims for a trash bag colored orange in imitation of a pumpkin and decorative face for Halloween. USPTO cited many references for creating Jack-O-Lantern bags, including conventional plastic lawn or trash bags. The Federal Circuit reversed the obviousness rejections as hindsight-based, and summarized previous cases:

Our case law makes clear that the best defense against subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of requirement for a showing of the teaching or motivation to combine prior art references.... [In re Rouffet] "the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them." [In re Fritch] examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]." [In re Fine] evidence of teaching or suggestion "essential" to avoid hindsight. [Ashland Oil] district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination." [Graham] "strict observance" of factual predicates to obviousness conclusion required. prior art references without evidence of such a suggestion,

teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability --- the essence of hindsight. [Interconnect Planning Corp.] "The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."

We have noted that evidence of a suggestion, teaching. or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved.... although "the suggestion more often comes from the teachings of the pertinent references...." range of sources available, however, does not diminish the REQUIREMENT FOR ACTUAL EVIDENCE. THAT IS, THE SHOWING MUST BE CLEAR AND PARTICULAR.... Broad conclusory statements regarding the teaching of multiple references, standing alone are not "evidence...." In addition to demonstrating the propriety of an obviousness analysis, PARTICULAR FACTUAL FINDINGS REGARDING THE SUGGESTION, TEACHING, OR MOTIVATION TO COMBINE serve a number of important purposes, including: (1) clear explication of the position adopted by the Examiner and the Board; (2) identification of the factual disputes, if any, between the Applicant and the Board; and (3) facilitation of review on appeal. Here, however, the Board did not make particular findings regarding the locus of the suggestion, teaching, or motivation to combine the prior art references....

Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the children's art references (Holiday and Shapiro) with the conventional trash or lawn bag references, nor does the Board make specific - or even inferential - findings concerning the identification of the relevant art, the nature of the PROBLEM to be solved, or any other factual findings that might serve to support a proper obviousness analysis.

To the contrary, the obviousness analysis in the Board's decision is limited to a discussion of the ways that the multiple prior art references CAN be combined to read on the claimed invention. For example, the Board... concludes that the SUBSTITUTION of orange plastic for the crepe paper of Holiday and the paper bags of Shapiro would be an OBVIOUS CHOICE... Yet this reference-by-reference, limitation-by-limitation analysis fails to demonstrate HOW the Holiday and Shapiro references teach or suggest their combination with the conventional trash or lawn bags to yield the claimed invention. See Rouffet... noting Board's failure to explain, when analyzing the prior art, "what specific understanding or technical principle... would have suggested the combination." Because we do not discern any finding by Board that there was a suggestion, the teaching, motivation to combine the prior art references cited against the pending claims, the Board's conclusion of obviousness, as a matter of law, cannot stand. [emphasis added]

The examiner simply contends in para. 12 that: "It is the Examiner's principle position that ... certain elements are inherent," citing MPEP 2112 in footnote 2.

As indicated above, the examiner has failed to comply with MPEP 2112, and basically views the computer-implemented inventory management system of Salvo without regard to its specific functions, which are clearly not the same functions as recited in Applicant's claims.

The examiner has failed to show that the apparatuses and methods recited in Applicant's claims "seem to be identical" to the inventory management system in Salvo, and therefore the examiner has not substantiated any basis to invoke the expedient of inherency.

The examiner simply opines that "it would have been obvious ... to modify Salvo to include the inherent elements." What inherent elements, and why?

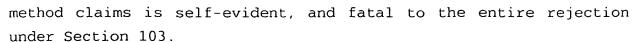
In para. 8 the examiner contends "a computer monitor inherent in any computer," and "means for sorting ...again inherent within virtually any personal computer including controller 114."

Of course, a computer monitor is inherent in any computer requiring one; and computers include inherent processors which can perform the sorting function. But, the many claims being rejected by the examiner recite much, much more than these mere hardware components; they recite "functional descriptive material," for which the examiner has provided no weight, and little weight by express admission in paras. 18 and 19.

Of what relevance, therefore, is the examiner's contention "to modify Salvo to include the inherent elements" of para. 8, when those elements are mere hardware and inherently lack any functional capability until the computer is specifically programmed?

The examiner's reason for this insignificant modification? "Such a modification would have provided an express disclosure of what one of ordinary skill in the art would already know." What does this mean? And, how does this comply with the stringent legal motivation requirements of the MPEP ch. 2100?

The examiner's failure to afford any weight to the disparate programming in the system of Salvo and Applicant's apparatus and



Independent method claim 15 and independent apparatus claim 22 have been addressed above in substantial detail for the specific structural and **functional features** recited therein.

The raw material, manufactured product, customer application criteria, intended application, filter lists, filters, filter criterion, and associated storing, populating, selecting, filtering, and displaying functions thereof are quite specific functional descriptive material for which the examiner has afforded no weight, and which are clearly lacking in Salvo.

Furthermore, in view of the fundamentally different purpose of the inventory management system of Salvo, and its fundamentally different **functional operation**, there is no basis under Section 103 to modify Salvo in any way relevant to Applicant's claims.

The examiner has not identified any problem relevant to Applicant's claims, or found in Salvo, for which Salvo might be modified for any reason. Under the MPEP, Salvo would have to be modified for some appropriate reason, typically to solve some identified problem, and that modification must be supported by some convincing line of reasoning and evidentiary basis in the Salvo reference being applied. Yet, the examiner has clearly failed to do so in his 3 and 1/4 lines of text.

As indicated above, displaying the various customer application criteria in the **functional manner** recited in claims 16 and 31 is not disclosed in Salvo in view of the simple inventory amount 151 or inventory price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

As indicated above, the selecting and filtering functions corresponding to the filter lists, filter criterion, and associated raw materials as recited in claims 17 and 32 are not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

As indicated above, the storing, selecting, and displaying functions corresponding to the raw material list, raw material information, different information, specific information, filtered lists, and correspondence as recited in claims 18 and 33 are not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

As indicated above, the sorting the filtered list by unit cost of the raw materials **function** recited in claims 21 and 39 are not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

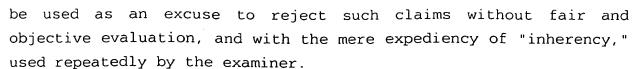
Clearly, price and unit cost and quite different, and would therefore be programmed differently. For this simple, yet significant difference, why would one skilled in the art want to modify Salvo to sort and display unit cost when cost data is highly confidential, and notoriously well known as being different than price?

It would appear, since the examiner has not explained his specific rationale, that the examiner views the mere number found in the price feature in Salvo and the mere number found in the unit cost of claims 21 and 39 to be no different from each other, and any corresponding sorting thereof to be no different, or simply "inherent."

Yet, if the examiner owned a retail store and were to sell his products at "unit cost" instead of "price," clearly that retail store would go bankrupt. This example may be dramatic, but is not the Applicant entitled to claims specific to his intended application?

Do not the MPEP and statutory provisions 101, 102, and 103 permit claims to improvements; even methods of doing business?

Such types of claims, and the corresponding computerimplemented claims found in Applicant's application may be difficult for the USPTO to analyze, but that difficulty should not



Claims 21 and 39 clearly emphasize this significant point since one might be inclined to afford no weight to the fundamental difference between unit cost and price and how they would be programmed differently.

Accordingly, reversal of the omnibus rejection of claims 15-18, 21, 22, 31-33, and 39 under Section 103(a) over Salvo is warranted and is requested.

## ISSUE 5

Issue (5) - whether claims 15-18 and 21 are unpatentable under 35 USC 103(a) over Salvo "and Applicant's admissions regarding the 'substantially verbatim' standard," found in Appliant's Petition Under Rule 144, dated 7/23/03.

This rejection is highly unusual, and appears to be an abuse of the applicable MPEP provisions.

This examiner made the restriction requirements in the 12/17/02 office action based on provisions of the MPEP, and expressly stated that: "Because these inventions [method Group III (claims 15-18 and 21) and apparatus Group IV (now claims 22-39)] are **distinct** for the reasons given above, ... because the inventions have acquired a separate status in the art because of their recognized divergent subject matter...."

This examiner was overruled by the Group Director in the decision dated 10/03/03 which withdrew this restriction requirement.

And, now this examiner attempts to grossly distort these events, and the remarks of this attorney, in fabricating the untenable rejection presented in para. 13.

What is the motive behind this rejection? What is the support in the MPEP or case law for this highly unusual rejection?

This rejection is clearly not fair or objective, and this attorney cannot comprehend why this rejection is being proffered?

In footnote 3, the examiner baldly states the he "interprets 'substantially verbatim' as being equal to 'not patentably

distinct'." What legal authority does the examiner cite (no footnote here) from the statutes, or the Rules, or the MPEP, or case law to support this bald, and unfounded contention?

The examiner also baldly contends in para. 13 that: "Because the claims 15-21 are 'substantially verbatim' when compared to claims 22, 31-33, and 39, the rejection of claims 15-18 and 21 stands and falls with the rejection of claims 22, 31-33 and 39."

What legal authority does the examiner cite (no footnote here either) from the statutes, or the Rules, or the MPEP, or case law to support this bald, and unfounded contention?

As indicated above, the examiner, himself, originally contended that the method and apparatus claims were [patentably] "distinct," yet now the same examiner baldly contends that they are "not patentably distinct?"

This is quite remarkable, and indicative of the continued failure by the examiner to afford due weight to the statutes; to the patent Rules; to the MPEP; to Applicant's claims; and to the references being applied in the various rejections.

And where in para. 13 has the examiner presented any basis to modify the claims in any manner relevant to Section 103? Where is the legal motivation? Where is any nexus between the Salvo reference and the alleged "admissions?"

This rejection may be creative; but appropriate or fair it is not, especially in view of the protracted, and clearly not compact prosecution of this application, and the repeated errors committed over and over by the examiner, and now further added to.

To be sure this attorney is neither upset nor bitter; and the various remarks being presented are being made always in good faith, and in utmost respect to the examiner, who is without a doubt well trained in patent prosecution procedures, and is an attorney as well (if my recollection is correct).

The extraordinary review of this application by the examiner, his various supervisors, the Group Director, and now the Board of Appeals will only add to the enforceability of the resulting claims which will eventually issue from this application.

This attorney is just surprised and dismayed that all this effort must be expended in this single application, and that the issues have been increasing, not decreasing, for the Board to now

resolve.

Clearly, the examiner has distorted Applicant's use of the "substantially verbatim" correspondence between the previously restricted method claims and the apparatus claims now being evaluated.

And equally clear, is that the examiner has provided no support that the method and apparatus claims must stand and fall together.

We must now review the record to address the rejection presented by the examiner in para. 13.

Page 3 of the 7/23/03 Petition provides:

And, at page 10 of the second amendment Applicant additionally stated that: "... it is noted that apparatus claim 22 is the means-for equivalent of method claim 15 under MPEP 809.03...."

Beginning at the bottom of page 14 of that Petition the following is found:

Furthermore, it is noted that apparatus claim 22 is the means-for equivalent of method claim 15 under MPEP 809.03, and should be examined together in the present application.

The examiner has failed to address this position; which should be viewed as an inherent admission by the examiner that the restriction requirement is defective.

MPEP 809.03 lists common types of linking claims, including "(C) a claim to 'means' for practicing a process linking proper apparatus and process claims."

MPEP 809 states that: "[t]he linking claims **must** be examined with the invention elected..." (emphasis added).

Yet, the examiner has not examined the so-linked claims. Note the one-to-one correspondence between the preambles of claims 15 and 22.

Note the one-to-one correspondence between the six method elements of method claim 15 and the corresponding six "means for" elements of apparatus claim 22.

The two claims could not be any better "linked" in accordance with the express MPEP requirements, yet the examiner has failed to comply with those requirements, even after they were expressly brought to his attention.

Where then from the Petition does the examiner find any basis to equate "substantially verbatim" to "not patentably distinct" as he contends in footnote 3? And, where does the examiner find in the Petition "Applicant's admissions regarding 'substantially

verbatim'" for requiring the method and apparatus claims to stand and fall together? Clearly, no such support for the examiner's contentions are found in Applicant's remarks.

The examiner is clearly distorting these remarks, and overlooks the very MPEP section, 809.03, under which those remarks were made.

MPEP 809.03 expressly states that:

There are a number of situations which arise in which an application has claims to two or more **properly divisible** inventions, so that a requirement to restrict the application to one would be proper, but presented in the same case are one or more claims (generally called "linking" claims) inseparable therefrom and thus linking together the inventions otherwise divisible...."

(C) a claim to "means", for practicing a process linking proper apparatus and process claims....

A careful review of Applicant's remarks in the Petition will clearly show that the mere functional elements in independent method claim 15 were properly linked to corresponding means-plusfunction elements in independent apparatus claim 22.

The Group Director withdrew the restriction requirement, apparently based on meeting the linking provisions of MPEP 809.03; nothing more, and nothing less, and surely not based on the examiner's present, after-the-fact contention equating "substantially verbatim" with "not patentably distinct."

There is not even a colorable basis for the examiner to proffer this bald contention; which bald contention contravenes the expressly stated restriction practice in ch. 800 of the MPEP.

Accordingly, the entirety of rejections found in para. 13 must be reversed for lack of any prima facie or colorable showing.

It is noted that the examiner has also separately addressed the "substantially verbatim" issue in para. 36 of the final office action.

Firstly, the examiner contends that he has been misquoted, and "respectfully requests that if Applicant intends to quote any portion of any Office Action, the quoted phrase must at least be actually found in the Office Action and not fictional." Applicant notes the examiner's sensitivity to this issue, and care has been

taken to comply with this request in the Brief.

Yet, notwithstanding this sensitivity to accurately quoting previous remarks, the examiner, himself, has not extended this courtesy to the Applicant, which is evident in the gross distortions of the record made by the examiner as identified above, and as identified further hereinbelow.

For yet another example, the examiner contends in para. 36 that: "The Examiner has carefully reviewed the Final Office Action mailed on June 6, 2003 (Paper No. 15) and the Office Action mailed on March 27, 2003 (Paper No. 12) and he can not locate the word 'unawareness.'"

In para. 2a, at the bottom of page 2 of the 03/27/2003 Office Action, the examiner stated: "Additionally, the Examiner is unaware of the substantially 'substantially verbatim" standard."

Is this not a sufficient basis to support Applicant's remark at page 8 of the Petition which stated: "The examiner merely claimed "unawareness" of such [substantially verbatim] standard ...?"

Is that "unawareness" by the examiner in para. 2a "fictional?"

Or, is the examiner's objection based on semantics?

Clearly that para. 2a would appear to provide an adequate basis to bring to the attention of the examiner his own statement regarding "unaware" v. "unawareness" of the "'substantially verbatim' standard."

If this is not sufficient for the examiner, then the matter should now rest with the Board of Appeals for evaluating the relevancy thereof in conjunction with deciding this Appeal.

However, Applicant contends that the clear relevancy of this, is the continuation by the examiner in office action to office action of distorting various matters including interpretation of Applicant's claims, 'the references, and Applicant's remarks, without affording due, if any, weight thereto.

As indicated above, Applicant is duty bound under Rule 111 to respond to the examiner's contentions and: "specifically [point] out the supposed errors in the examiner's action and must reply to every ground of objection and rejection in the prior Office action."

Failure by the Applicant to do so may avoid antagonizing the examiner, but Applicant has no choice since the Board will also be duty bound to examine each and every rejection, and the examiner's remarks, and Applicant's rebuttal thereof.

Returning to para. 13 of the office action, what is the modification of Salvo being proffered by the examiner with the alleged "admissions" of Applicant; and where is the evidence of any legal motivation to meet the stringent requirements of MPEP 706.02(j) and ch. 2100? Clearly, the examiner has not met these requirements in the bald contentions presented in para. 13.

As indicated above, Salvo is non-analogous art for method claims 15-18 and 21; and the examiner has not shown otherwise.

In rushing to obscure the patentable distinction between the method and apparatus claims in the unfounded reliance on the mere allegation of "substantially verbatim" contained in para. 13, the examiner's rejection is woefully incomplete, and must be reversed.

The examiner has clearly not afforded any weight to the method claims as different, and distinct, from the apparatus claims; and has correspondingly failed to afford any weight thereto in contravention of the applicable MPEP provisions, including MPEP 2116.

In joining the method claims to the apparatus claims in para. 13, the examiner apparently incorporates his expressed failure to afford due weight to the **functional** elements of these claims as presented by the examiner in paras. 18 and 19.

Method claims are fundamentally **functional** in operation, and the examiner's admitted failure to afford due weight to the functional features in the apparatus claims is compounded by his corresponding failure to afford any weight to the functional features in the method claims, without which function the method claims would be eviscerated.

It is clear from the examiner's previous use of Salvo that that reference has been used by the examiner for the mere computer hardware thereof, and the "inherent" hardware features thereof as presented in para. 8, without regard to the specific functional operation thereof (paras. 18 and 19).

This is clear error.

As indicated above, the raw material, manufactured product,

customer application criteria, intended application, filter lists, filters, filter criterion, and associated storing, populating, selecting, filtering, and displaying functions specifically recited in claim 15 are quite specific functional descriptive material for which the examiner has afforded no weight, and which are clearly lacking in Salvo; and the examiner's reliance on the alleged admissions of Applicant are without support or relevance.

Furthermore, in view of the fundamentally different purpose of the inventory management system of Salvo, and its fundamentally different functional operation, there is no basis under Section 103 to modify Salvo in any way relevant to Applicant's claims.

The examiner has not identified any problem relevant to Applicant's claims, or found in Salvo, for which Salvo might be modified for any reason. Under the MPEP, Salvo would have to be modified for some appropriate reason, typically to solve some identified problem, and that modification must be supported by some convincing line of reasoning and evidentiary basis in the Salvo reference being applied. Yet, the examiner has clearly failed to do so in para. 13, or in para. 8.

Para. 8 clearly addresses the **hardware** features of claims 22, 31-33, and 39, without regard to the functions thereof; and clearly without regard to the express functions recited in claims 15-18 and 21 which the examiner baldly equates thereto in the expedient of avoiding the requisite analysis under Section 103, MPEP 706.02(j), and ch. 2100.

As indicated above, displaying the various customer application criteria in the **functional manner** recited in method claim 16 is not disclosed in Salvo in view of the simple inventory amount 151 or inventory price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

As indicated above. the selecting and filtering **functions** corresponding to the filter lists, filter criterion, and associated raw materials as recited in method claim 17 are not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from

this reference since no relevant problem or legal motivation has

As indicated above, the storing, selecting, and displaying functions corresponding to the raw material list, raw material information, different information, specific information, filtered lists, and correspondence as recited in method claim 18 are not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

been identified by the examiner in this reference.

As indicated above, the sorting the filtered list by unit cost of the raw materials **function** recited in method claim 21 is not disclosed in Salvo in view of the different handling of the inventory amount 151 and price source 126 disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

Clearly, price and unit cost are quite different, and would therefore be programmed differently. For this simple, yet significant difference, why would one skilled in the art want to modify Salvo to sort and display unit cost when cost data is highly confidential, and notoriously well known as being different than price?

Do not the MPEP and statutory provisions 101, 102, and 103 permit claims to improvements; even methods of doing business, as distinct from the machine in which such methods might be practiced?

Method claims 15-18 and 21 as discussed above recite different and specific **functional** elements clearly overlooked by the examiner in his rush to reject these claims following the decision on Petition.

The rejections of these different claims cannot "stand[] and fall[]" together with the apparatus claims because the MPEP holds otherwise; and the claims are patentably distinct in accordance with the very provisions of the MPEP (ch. 800); and as also previously argued by the examiner in the earlier restriction requirement.

The examiner's attempt now to undermine his own position in the early restriction requirement is patentably transparent, and without support in the MPEP. It is just another attempt to increase the issues to be decided on appeal, and further add to the complexity of the prosecution and the need by Applicant to expend valuable resources in responding in minutia, as required by Rule 111.

Accordingly, reversal of the omnibus rejection of claims 15-18 and 21 under Section 103(a) over Salvo "and Applicant's admissions regarding the 'substantially verbatim' standard" is warranted and is requested.

#### ISSUE 6

Issue (6) - whether claims 15-18, 21, 22, 31-33, and 39 are unpatentable under 35 USC 103(a) over Purcell and Peterson et al.

Purcell is non-analogous art. The field of endeavor is mere inventory information exchange between buyers and sellers; and not how that inventory is selected in manufacturing products.

The problem in Purcell is improving communication of available inventories between buyers and sellers; and not the manual combinations of that inventory in designing products.

Similarly, Peterson is non-analogous art as relating neither to Applicant's field of endeavor nor particular problems.

Peterson is non-analogous art since it relates to another inventory system specific to supplying **repair** parts in a Maintenance and Repair Operati[on] (MRO) network; whereas the endeavor in Applicant's application is selecting raw materials for initially manufacturing a product, not repairing that product, in a computer-design system.

And, the particular problem in Applicant's invention is the plethora of raw materials available (in inventory) which can be arranged and manufactured in a multitude of mere possibilities, and the substantial investment of time therefor in so doing manually.

The express problem found in col. 1 of Peterson is that "The manufacturer ... will not be able to tell with precision the current number of parts held by individual vendors in the

distribution network," which is not relevant to Applicant's problem in designing products, and provides no help to those using the MRO network in how to design their products using the various repair items found in that MRO network.

The examiner's contentions as presented in paras. 14-16 fail to comply with MPEP 706.02(j) and Ch. 2100, and are quite simplistic, and fail to afford any weight to Applicant's claims; or the distinction in apparatus and method therein; and fail to evaluate such claims each in the whole; and fail to evaluate the two disparate references in the whole.

In fact, the examiner expressly admits in para. 14 that: "Again, it is the Examiner's principle position that the claims are anticipated as discussed above because the criteria being indicative of intended application of the raw material in a product is inherent."

Yet again, the examiner must rely on the expedient of inherency because the very references being applied are irrelevant, and lack any teaching relevant to Applicant's claims. The examiner, yet again relies on inherency without the requisite showing required in the MPEP or case law.

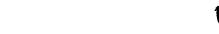
The examiner's "principle position" is clearly that any computer implemented invention would be anticipated or clearly obvious merely because any computer could be programmed, or would inherently have programming, to perform the common functions for which computers are known.

The examiner has created an impossible standard, and a standard neither authorized nor supported in the MPEP, in the patent Rules, in the statute, or in the case law.

In para. 41, the examiner yet again distorts Applicant's remarks; and this attorney has not and does not challenge the Graham decision, this attorney merely challenges the examiner's various rejections and contentions as addressed in the previous papers, and as now presented in this Brief.

The examiner's additional contention in para. 41 that "the Examiner nevertheless declines to reverse the Supreme Court at this time" is at best glib, and imprudent; and is not amusing to this attorney.

What does the examiner mean by this statement? What does the



examiner mean by his statements in paras. 3 and 48 about his "conclusions of law?"

Such statements are merely additional evidence of the examiner's failure to follow the express procedures in the MPEP, and afford due weight to Applicant's claims.

Returning to para. 14 the examiner has not only admitted failure to afford due weight to the alleged "intended application" elements as being "inherent," but has overlooked the fundamental differences between the apparatus claims, 22, 31-33, and 39, and the method claims, 15-18 and 21, and the express functions therein.

These are many claims, with many, many elements; and what is the "intended application" in each of these claims for which the examiner contends "inherency?" This should not be subject to speculation, as the examiner's contention would require.

In para. 14, the examiner fails to identify specific features of the various claims, and merely generalizes. The examiner states that: "if not inherent, Peterson teaches using criteria indicative of intended application of the raw material (e.g. alternate part number, assembly number, or end product)." Where is this taught, and how is this relevant to the specific features of Applicant's claims?

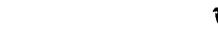
The examiner then simply concludes that "it would have been obvious to ... modify Purcell '807 ...," but how?

Why? The examiner states that "Such a modification [which one?] would have made searching in Purcell '807 easier since if the part number was not known, there would be other ways to identify the desired object." How is this legal motivation under MPEP 2100?

Easier searching in Purcell? Where is any problem of hard searching in Purcell, or any need for easier searching? Clearly, the inventory system in Purcell works quite well as intended, and the examiner's attempt to improve it is a hindsight fabrication, without regard to the whole of either reference, the problems therein, Applicant's problems, or Applicant's claims themselves.

In para. 15 the examiner "finds that raw materials are a form of products," but how is this relevant to the claims? Claims 15 and 22 recite "raw materials for manufacturing a product

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therefrom." So, the examiner's contention then requires a showing of raw materials for raw materials ("are a form of products"). This is incongruous.

The products and services in Purcell are merely identified in an inventory system for purchase, not for design or manufacture of other products. Although, they could surely later be used for manufacture, but that is not the purpose of the inventory system in Purcell.

The products in Peterson are repair parts in the MRO inventory network. Repair parts; which are not disclosed in Peterson for use in designing or manufacturing the products which would require repair therewith.

para. 16, the examiner contends that big if" Purcell/Peterson in some unexplained combination "does disclose the exact claimed stored information, e.g. 'information specific to permitted applications' [which term is not found in Applicant's claims], the stored information is nonfunctional descriptive material." Finally, the examiner alludes to MPEP 2106 at page 2100-13, yet without complying with that provision or affording any weight to the differences between "nonfunctional descriptive material and "functional descriptive material."

It would appear, and Applicant assumes on behalf of the examiner, that this position of the examiner applies to **ALL THE CLAIMS AND ALL THE REJECTIONS**. This position of the examiner would also appear to apply to his various contentions of little, if any, weight to "functional features, in paras. 17-19 for example.

And, this position of the examiner would apparently apply to both the apparatus claims **AND THE METHOD CLAIMS**, evaluated by the examiner without regard to the fundamental differences therebetween, e.g. paras. 10, 12, 13, and 14.

The examiner repeatedly contends that certain features of the claims are inherent, or functional, and now in para. 16 "nonfunctional descriptive material." Note the inconsistency.

MPEP 2106 at page 2100-13 provides that:

## (b) Nonfunctional Descriptive Material

Descriptive material that cannot exhibit any functional

interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture, or composition of matter and should be rejected under 35 U.S.C. 101.

At page 2100-22 "Common situations involving nonfunctional descriptive material" are presented, none of which is representative of any element found in Applicant's claims.

In contrast, MPEP 2106 at page 2100-13 provides that:

## (a) Functional Descriptive Material...

...In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory....

Computer programs are often cited as part of a claim...The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program.

And, at page 2100-21 MPEP 2106 further provides that:

...Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless the functional material would have been suggested by the prior art.

As indicated above, the claims were specifically amended to expressly recite the computer-system safe harbor element in conformance with MPEP 2106, which is also the magic word computer identified by the Federal Circuit.

The various features recited in the claims are embodied in both the computer hardware and software as the specification clearly discloses.

And, the process claims recite functional performance effected in that specifically programmed computer system.

There can be no doubt that all Applicant's claims meet the "functional descriptive material" test of the MPEP, and not the "nonfunctional descriptive material" test of the MPEP, and the examiner's mere contention to the latter is without merit. The

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examiner's contention in this regard as introduced in para. 16 is a mere unsupported conclusion (of law? paras. 3 & 48), and is clearly erroneous.

For this reason, alone, all the rejections of record should be reversed for the examiner's failure to afford due weight to these functional features of both the apparatus claims, which use the permitted means-plus-function elements, and the method claims which are expressly functional.

Independent method claim 15 and independent apparatus claim 22 have been addressed above in substantial detail for the specific structural and **functional features** recited therein, which in para. 16 the examiner admits his failure to afford any weight thereto.

The raw material, manufactured product, customer application criteria, intended application, filter lists, filters, filter criterion, and associated storing, populating, selecting, filtering, and displaying functions thereof are quite specific functional descriptive material for which the examiner has afforded no weight, and which are clearly lacking in Purcell and Peterson.

Furthermore, in view of the fundamentally different purpose of the inventory information exchange system of Purcell, and the MRO network of Peterson, and their fundamentally different functional operation, there is no basis under Section 103 to modify Purcell with Peterson in any way relevant to Applicant's claims.

The examiner has not identified any problem relevant to Applicant's claims, or found in Purcell or Peterson, for which Purcell might be modified by Peterson for any reason. Under the MPEP, Purcell would have to be modified for some appropriate reason, typically to solve some identified problem, and that modification must be supported by some convincing line of reasoning and evidentiary basis in the Purcell and Peterson references being applied in paras. 14-16. Yet, the examiner has clearly failed to do so in his reliance on unsubstantiated inherency and nonfunctional descriptive material.

As indicated above, displaying the various customer application criteria in the **functional manner** recited in claims 16

claims

products.

for

and 31 is not disclosed in Purcell in view of the inventory exchange system thereof including product information such as casing pipe, wall thickness, and thread specifications, col. 9, 11. 36+; and not disclosed in Peterson in view of the MRO network configured therein for repair parts with an accurate number thereof. Nor would such functional capability be obvious from these references since no relevant problem or legal motivation has

been identified by the examiner in these references to combine them in any manner, let alone the manner recited in Applicant's

the computer assisted design or manufacture of

As indicated above, the selecting and filtering functions corresponding the filter lists. filter criterion. to associated raw materials as recited in claims 17 and 32 are not disclosed in Purcell in view of the inventory exchange system thereof; and are not disclosed in Peterson in view of the MRO network configured therein for repair parts with an accurate number thereof. Nor would such functional capability be obvious from these references since no relevant problem or motivation has been identified by the examiner in these references to combine them in any manner, let alone the manner recited in Applicant's claims for the computer assisted design or manufacture of products.

As indicated above. the storing, selecting, and displaying functions corresponding to the raw material list, raw material information, different information, specific information, filtered lists, and correspondence as recited in claims 18 and 33 are not disclosed in Purcell in view of the different inventory exchange system disclosed in this reference; nor would such functional capability be obvious from this reference since no relevant problem or legal motivation has been identified by the examiner in this reference.

As indicated above, the sorting the filtered list by unit cost of the raw materials **function** recited in claims 21 and 39 is not disclosed in Purcell in view of the price information found therein; nor found in Peterson in view of the price information for the repair parts found therein. Nor would such functional capability be obvious from these references since no relevant



problem or legal motivation has been identified by the examiner in these references.

Clearly, price and unit cost are quite different, and would therefore be programmed differently. For this simple, yet significant difference, why would one skilled in the art want to modify Purcell by Peterson to sort and display unit cost when cost data is highly confidential, and notoriously well known as being different than price?

The examiner's simplistic reason to combine the two disparate references "if the part number was not known" in Purcell is a mere hindsight fabrication, having no basis in the Purcell reference itself. Clearly, Purcell discloses an operable system with sufficient data fields, e.g. col. 6, 11. 63+; and col. 9, 11. 23+, and the examiner's need to improve that system is without logical or evidentiary basis.

And, as indicated above, MPEP 2106 requires due weight to the functional descriptive material in both the apparatus claims, and the method claims; and the examiner's failure to afford due weight to the apparatus claims is one type of error, but that error is compounded for the method claims which are inherently functional, and the failure to afford any weight to those functions necessarily eviscerates those method claims. This would create yet again an impossible standard to meet, and is just not permitted by modern patent law, irrespective of the examiner's subjective interpretation thereof.

Accordingly, reversal of the omnibus rejection of claims 15-18, 21, 22, 31-33, and 39 under Section 103(a) over Purcell ('807) and Peterson et al is warranted and is requested.

## Miscellaneous Matters

Paragraphs 17-50 follow the several rejections found in the preceding paragraphs of the office action; and are apparently disconnected therefrom, and require speculation as to their connection therewith.

Paras. 17-19 have been addressed above.

The examiner's contentions found in para. 20 re "lexicographer" are traversed by the fact that the various claims

utilize plain English words which have both their plain English meanings, and any additional meaning thereto when read in light of the specification.

As indicated above, the various terms are found in the specification, and that specification even lists various examples for the meaning thereof.

Accordingly, the Applicant need not accept or decline the examiner's assertions in this matter; nor does the Applicant accept any statement or assertion made by the examiner on behalf of the Applicant. Applicant's position is well and clearly stated in the various responses to the various office actions, and need not be further addressed herein.

With respect to the examiner's "definitions" proffered in para. 21, Applicant does not accept any of those definitions to the extent such terms are not found in Applicant's claims or specification; and does not accept any of those definitions to the extent the examiner has improperly presented them; and does not accept any of those definitions if they in any way are inconsistent with the plain English definitions of those terms, or how those words are used in Applicant's claims and specification.

The rules are clear: claims terms are to be given their ordinary definitions, and must be read in light of the specification.

There is no need therefore to attempt to define each and every term found in the specification since Applicant will rely on the ordinary definitions thereof as used in the claims and in that specification, and as would be understood by those skilled in the art.

Paras. 22-30 relating to the Section 112, 6th para. issues have been addressed above. The simple conclusion of these paragraphs is that Applicant's apparatus claims expressly use the means-plus-function elements authorized by Section 112, 6th para, which should be interpreted in accordance with the case law associated with that statute, including In re Donaldson.

The allowable subject matter identified in paras. 31 and 32 is noted. As indicated above, the features recited in these claims may be used to further interpret the corresponding features being further limited thereby in their parent claims by the

commonly known principle of claim differentiation.

Applicant notes the new ground of rejection referenced by the examiner in para. 33, and addressed above.

Regarding the examiner's imprudent contention in para. 34 that "Applicant continues to muddy the evidentiary record," this attorney, clearly in behalf of the Applicant, has at all times attempted to respond to the various office actions in good faith in addressing each and every issue raised by the examiner, and has attempted to follow the order of issues raised by the examiner himself.

This is especially true in the present Appeal Brief in which this attorney has attempted to follow the examiner's lead in presenting the issues in paras. 1-50, in that order, notwithstanding the apparent interplay therebetween.

If the record is "muddy," that is unfortunate because this attorney has continually attempted to "clear" the record, and make sense of the various objections and rejections.

As indicated above, the record now includes five office actions on the merits; various errors made by the examiner have been identified; and the various issues are being addressed one-by-one culminating in this Appeal Brief.

The examiner's contention regarding burden of proof in para. 35 is noted. Also noted, is that if the examiner fails to establish a prima facie showing, then that burden has not been met, and no burden shift is required.

Para. 36 has been addressed above. This attorney had no intention, nor presently has any intention to "mislead" anyone. This attorney, nevertheless stands on all statement made in the previous responses, and in this Appeal Brief, because this attorney is acting in good faith, and with utmost respect for the USPTO and its agents.

This attorney readily admits that errors can be made, surely by the examiner, as well as by this attorney. In such case, this attorney would welcome the examiner to point out those errors, just as this attorney is duty bound to point out the errors in the office actions. Then, the Board can resolve the dispute.

Regarding para. 37, this attorney has not intended to "confuse the record," but nevertheless stands by that record. A



careful review of that record will support the propriety of the various statements made therein challenged by the examiner in para. 37.

As for the examiner's contention in para. 37 that in the "Interview Summary... and page 2 of Applicant's petition (Paper No. 15) Applicant demanded that 'means for' phrases be analyzed ...," that contention does not appear substantiated in those records.

The copy of form PTO-413 entitled Interview Summary, recording the interview between "Michael Cuff" and "Mr. Francis L. Conti" on "approx. April 24, 2003" which was attached to the 6/06/03 office action states in the "Substance of Interview" only that: "The Examiner will withdraw the previous office action (Paper No. 12) and issue a new office action incorporating 112 6th paragraph analysis."

And, at pages 2 and 3 of the Petition, this attorney's record of that interview merely indicates that various matters were "discussed," at all times amicably, without any need for "demand," and this attorney denies that any such "demand" was made.

In fact, this attorney implored supervisor Cuff for cooperation to avoid the need for Appeal, and this attorney further offered to negotiate acceptable amendments to the claims with supervisor Cuff in the scheduled interview.

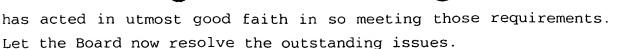
Yet, that interview was canceled by supervisor Cuff due to the expected cooperation of the examiner, which cooperation did not materialize.

Where then is the examiner's support for emphasizing "demanded" in para. 37? Why emphasize this point?

This contention appears to show the apparent acrimony by the examiner, which acrimony is regretted, and unwarranted.

This attorney now apologizes on the record for any offense to the examiner which may have been caused in performing the duty required under Rule 111 to traverse each and every alleged error in the office action(s).

Applicant need not "demand" anything; Applicant is <u>entitled</u> to a thorough, objective, fair, and complete evaluation of his patent application under all applicable provisions, including Rule 104 and MPEP 2181, and this attorney is certain that the examiner



Regarding para. 38, the form PTO-892 listing the references in the first office action dated 8/2/02 contains two columns at the right entitled "Classification." These columns list the corresponding class and subclass for the references listed at the left of the form. Such class/subclass is typically understood to reflect the field of search, which field of search is commonly printed on the front of issued patents.

See the Salvo reference for example under (58) Field of Search and (56) References Cited.

Notwithstanding the examiner's contention of "Applicant's unfamiliarity of form titled PTO-892," Applicant nevertheless contends the statements made in this regard were made in good faith, and are relevant to the examiner's contention in the disputed para. 12 that "because the search required for Group III is not required for Group IV."

If form PTO-892 is not relevant for this purpose as the examiner contends, then the examiner may want to make of record in this appeal whatever form is relevant to substantiate the examiner's early contention regarding different searches, which is especially relevant to the issue of analogous art.

Para. 39 has been addressed above.

Para. 40 has been addressed above in principle. It is Applicant's position that the claims adequately comply with Section 112, and that it is not "impossible to properly construe" them. And, it is quite clear that the claims are combination claims, with the examiner confusing form or labels over substance.

Regarding para. 41, the examiner again distorts the remarks, and yet again proffers his characterization of Applicant's intention. Applicant did not, and does not "challenge the format for an obviousness rejection...," nor does the Applicant accept any such characterization by the examiner.

The examiner may make his position as clear as possible; and Applicant will make his position as clear as possible; and now the Board will decide.

Paras. 42-44 apparently need no additional comments.

Para. 45 was addressed above. These three basic references

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are cited by the examiner for the minimum, yet substantial, level of skill in the computer art, and Applicant agrees that those skilled in the art would possess substantially more knowledge; see the Fonar case cited above.

As such, these references do not support the examiner's various contentions that one of ordinary skill in the art would not be able to interpret Applicant's claims under Section 112, or would find the claims "impossible to properly construe," (para. 40).

To the contrary, these very references provided by the examiner are clear evidence that those skilled in the art would know how to program and operate computer-based inventions to achieve the functions specified by the Applicant, and manipulate the specific data fields also specified in Applicant's disclosure and claims.

These references do not in any way support the examiner's mere conclusions of anticipation under Section 102 or obviousness under Section 103.

Anticipation under Section 102 requires identity of structure, function, and operation not found in any of the references of record.

And, obviousness under Section 103 requires that the reference(s) being applied suggest(s) the necessary changes required therein to match Applicant's claims, and that that suggestion is based on evidence found in the reference(s) in solving relevant problems.

Regarding para. 46, claims 31-39 were not added by amendment until 01/09/2003, so the examiner's reference to "2002" apparently should be "2003."

Following the first phone call between the examiner and Applicant's NCR in-house attorney, that NCR attorney called this attorney on 2/20/2003 to discuss the examiner's proposed allowance of claims 35-38, which was discussed to be unacceptable.

On 04/03/2003 the NCR attorney again contacted this attorney to indicate that a phone message had been left with the examiner, but no response from the examiner had been received.

Accordingly, Applicant appreciates the examiner's courtesy, and Applicant "declined to exercise this option" as being

unacceptable.

Para. 47 is duly noted.

Para. 48 is duly noted, and would appear to be sufficiently traversed above.

The examiner's suggestion to "summarize" in para. 49 is noted; but would only unduly add to the length of this Brief, and has been declined.

Applicant traverses the examiner's contention that the remarks "at times jumps all over the place and tends to ramble on." The previous remarks, as well as those in the Brief attempt to follow the examiner's office action in sequence, as best as possible. It is noted that the examiner has presented paras. 17-30, 33-41, 44, 45, and 47-49 remotely from paras. 4-16, and Applicant has attempted in this Brief to somehow tie together these jumbled paragraphs.

The mere introduction of the examiner's suggested summary cannot ameliorate the diffuse organization of the final office action.

Furthermore, Applicant does not enjoy the luxury of presenting "summary" remarks. There is no risk to the examiner in presenting summary rejections, and failing to be complete; he may simply issue another office action ad infinitum, as evidenced by the five office actions of record.

The sanctions of Rule 111 imposed on the Applicant are severe; and even the examiner has warned Applicant of those sanctions in para. 22, page 17.

The examiner has presented a thirty-three (33) page final office action with fifty (50) enumerated paragraphs and twenty-seven (27) enumerated footnotes, and has cited many legal cases, all of which cases it is assumed the examiner has read, unless he indicates to the contrary. Clearly, the examiner has expended a considerable effort in preparing the office action.

The substantial substance of that 33-page final office action must be addressed in this Appeal Brief, page by page, paragraph by paragraph, issue by issue, and claim by claim; there are simply no shortcuts allowed under Rules 111 and 192.

This Brief must therefore be read and afforded due weight by the examiner in preparing his Answer, page by page, issue by Docket NCR-8778



issue, and claim by claim; and there are no shortcuts for the examiner.

Para. 50 has been addressed by this Appeal Brief.

For these exemplary reasons, reversal of all the various rejections is warranted, and allowance of claims 15-22 and 31-39 is warranted and is requested.

Respectfully submitted,

Date: 19 Dec 2003

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Attachment: Appendix of claims

#### APPENDIX

Claims on appeal:

15. A computer implemented method of selecting a raw material for manufacturing a product therefrom comprising:

storing in a computer system a list of different raw materials, with each of said raw materials having various customer application criteria stored therewith, and said criteria being indicative of intended application of said raw material in a product;

populating a plurality of filter lists corresponding with said stored customer application criteria for said different raw materials;

displaying a material browser including a plurality of filters corresponding with said filter lists;

selecting one of said filter lists and specifying a filter criterion therein;

filtering said list of raw materials to obtain a filtered list thereof matching said filter criterion; and

displaying in said browser said filtered list of raw materials matching said filter criterion.

- 16. A method according to claim 15 further comprising displaying also in said browser said various customer application criteria corresponding with each of said raw materials in said filtered list.
- 17. A method according to claim 16 further comprising:

selecting a plurality of said filter lists and selecting corresponding filter criterion therefor; and

filtering said list of raw materials to obtain said filtered list thereof matching said filter criteria corresponding with said selected filter lists.

18. A method according to claim 17 further comprising:

additionally storing with said list of raw materials raw material information corresponding with each of said raw

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materials including information different than said customer application criteria and information specific to permitted applications of said raw material in a product;

selecting one of said raw materials from said filtered list; and

displaying in said browser said raw material information corresponding with said selected raw material.

- 21. A method according to claim 17 further comprising sorting said filtered list by unit cost of said raw materials.
- 22. An apparatus for selecting a raw material for manufacturing a product therefrom comprising:

means for storing in a computer system a list of different raw materials, with each of said raw materials having various customer application criteria stored therewith, and said criteria being indicative of intended application of said raw material in a product;

means for populating a plurality of filter lists corresponding with said stored customer application criteria for said different raw materials;

means for displaying a material browser including a plurality of filters corresponding with said filter lists;

means for selecting one of said filter lists and specifying a filter criterion therein;

means for filtering said list of raw materials to obtain a filtered list thereof matching said filter criterion; and

said displaying means being further configured for displaying in said browser said filtered list of raw materials matching said filter criterion.

- 31. An apparatus according to claim 22 wherein said displaying means are further configured for displaying also in said browser said various customer application criteria corresponding with each of said raw materials in said filtered list.
- 32. An apparatus according to claim 31 wherein:



said selecting means are further configured for selecting a plurality of said filter lists and selecting corresponding filter criterion therefor; and

said filtering means are further configured for filtering said list of raw materials to obtain said filtered list thereof matching said filter criteria corresponding with said selected filter lists.

## 33. An apparatus according to claim 32 wherein:

said storing means are configured for additionally storing with said list of raw materials raw material information corresponding with each of said raw materials including information different than said customer application criteria and information specific to permitted applications of said raw material in a product;

said selecting means are further configured for selecting one of said raw materials from said filtered list; and

said displaying means are further configured for displaying in said browser said raw material information corresponding with said selected raw material.

# 34. An apparatus according to claim 33 wherein: said product comprises a pressure sensitive material; and

said raw material information comprises master width, areas of concern regarding use of said selected raw material, description of facestock, description of adhesive, description of liner, and description of typical applications for which said selected raw material may be used.

# 35. An apparatus according to claim 32 wherein: said product comprises a pressure sensitive material; and

said customer application criteria comprises print method, adhesive type, minimum temperature for adhesive type, service range of adhesive type, and facestock type.



- 36. An apparatus according to claim 35 wherein said print method comprises cut sheet lap joined, cut sheet laser, direct thermal, thermal transfer, and impact.
- 37. An apparatus according to claim 35 wherein said adhesive type comprises permanent, cold temperature, and removable.
- 38. An apparatus according to claim 35 wherein said facestock type comprises paper, kimdura, 100# tag, 7 pt tag, 8 pt tag, matte litho, latex impregnated, gloss, matte chrome polyester, bright chrome polyester, clear polyester, white polyester, polyolefin, and vinyl.
- 39. An apparatus according to claim 32 further comprising means for sorting said filtered list by unit cost of said raw materials.